

Commander's Guide to Environmental Compliance and Protection



HEADQUARTERS, UNITED STATES MARINE CORPS
Washington, D.C.
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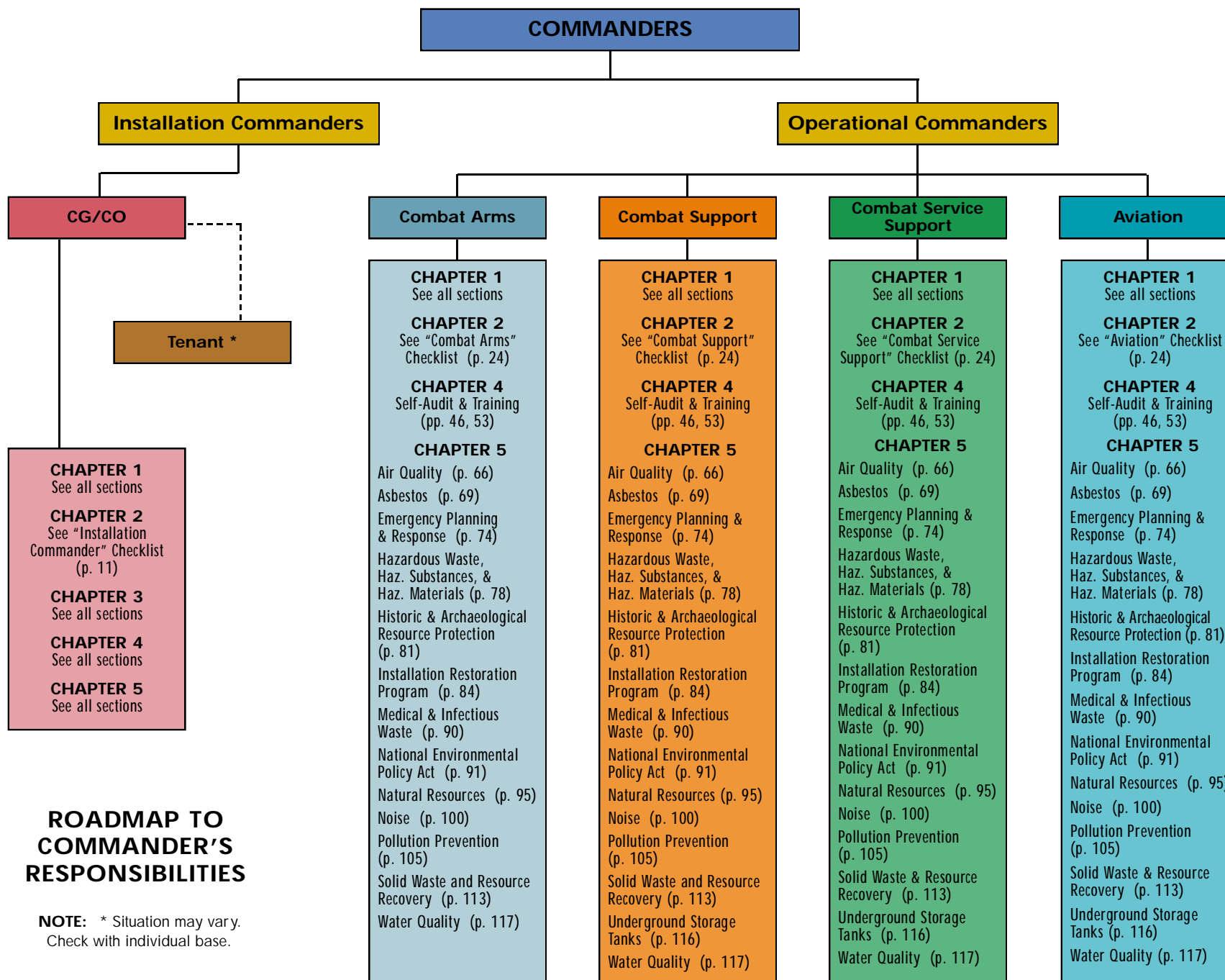


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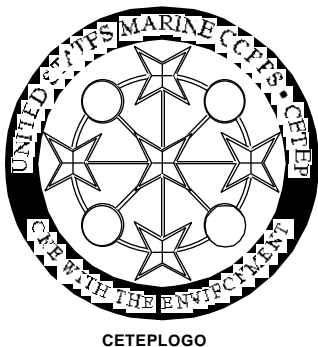
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1 ENVIRONMENTAL LEADERSHIP



INTRODUCTION

AS A MARINE CORPS COMMANDER, ENVIRONMENTAL requirements can impact all of your planned and ongoing operations. Consequently, your attitudes and actions concerning the environment can play a critical role in the mission readiness of your command. Environmental responsibilities can also provide an excellent avenue for you to demonstrate fundamental Marine Corps values. As a leader of Marines, you understand the concept and reality of “leadership by example.” You also recognize that in the Marine Corps, every accomplishment begins and ends with the individual Marine. Your efforts to epitomize the ideals of honor, courage, self-discipline, and commitment upon which our country and Corps were founded can be exemplified through the environmental excellence of your command. The following points delineate key aspects of the link between Marine Corps ideals and a commitment to the environment.



- Marines uphold the Constitution by obeying the Nation's laws. Environmental laws are no exception. All personnel must stay informed of the environmental laws that impact their lives. The Comprehensive Environmental Training and Education Program (CETEP) promotes an awareness of environmental laws and provides

training in their specific provisions; the Environmental Compliance Evaluation (ECE) program serves as a tool for ensuring that your command complies with these laws.

- Marines take care of their own on the battlefield and at home. The development of effective pollution prevention programs will enable your command to reduce exposures to hazardous materials in the workplace, at home, and in recreational areas, while promoting mission readiness through Marines who are healthier and more productive.
- Marines are good neighbors. Mission readiness can be strengthened through proper environmental management and by ensuring that each command maintains good relationships with neighboring communities, thereby securing long-term access to training ranges and operational areas.
- Marines are innovative and renowned for extremely effective and efficient operations. The high cost of cleanup and other environmental programs demands the optimum use of existing resources for maximum impact. Your command must identify and apply technologies that offer the highest return on each investment, drawing upon your greatest asset, Marine Corps personnel.

SUMMARY

- ◆ As a commander, you are ultimately responsible for compliance with all applicable environmental laws and regulations within your command and/or unit. This responsibility extends to all areas within your fenceline and to the actions of your tenants, contractors, and visitors.
- ◆ You should consider the possible environmental impacts of your operations and activities in advance of a decision to execute them.
- ◆ The consequences of not complying can be severe. Most environmental laws contain provisions that allow both civil and criminal penalties.
- ◆ Environmental laws affect a vast number of your operations and actions and can impact facility development, land use, and training.
- ◆ Command emphasis on the environmental program provides the leadership that will determine its overall success.

MARINE CORPS ENVIRONMENTAL PRINCIPLES

The primary mission of the Marine Corps is national defense. In support of that mission, we are committed to protecting the environment and to conserving our natural and cultural resources. The following principles guide our Marine Corps environmental objectives and initiatives:

- Demonstrate leadership in environmental security: compliance, pollution prevention, conservation, cleanup, and technology;
- Protect human health and the environment during planning, acquisition, utilization, and decision making at all levels of command;
- Maintain access to training lands by effectively managing the natural and cultural resources under our stewardship;
- Promote aggressive environmental programs to ensure compliance with all applicable Federal, state, and local laws and regulations;
- Integrate the pollution prevention ethic into all activities through source reduction, resource recovery, and recycling; and
- Enhance outreach activities with local communities by openly addressing environmental issues.



A LEGAL PERSPECTIVE

As an Installation Commander, you have the ultimate responsibility for activities under your command. Your installation's environmental permits and environmental laws hold you accountable and responsible for anything occurring within your fenceline and for the release of any pollutants beyond your fenceline. This responsibility includes all units and tenants on your installation, whether or not they are under your direct chain of command. If you are a Unit Commander, you are responsible for all activities within your unit and must support your installation's Commanding General/Commanding Officer (CG/CO) to ensure that the installation remains in compliance.

Under the major environmental statutes, the United States Environmental Protection Agency (EPA) may impose administrative penalties of up to \$27,500 per violation per day. Most laws also impose criminal liability for willful or knowing violations, and some impose criminal liability for negligent violations. Liability often does not depend on knowledge of, or personal participation in, criminal acts. Courts have also upheld criminal convictions of senior corporate officials not directly involved in wrongful acts under the statutory theory that officials consciously screened themselves from a matter they had the power to prevent or correct (i.e., culpable neglect). Military officials have a duty to seek out and remedy violations and to implement measures to prevent future violations.

Therefore, as a commander, you should familiarize yourself with legal requirements applicable to your command. Chapter 2, Responsibilities, provides checklists based on these laws and requirements. Whereas the current version



Finally, each commander also has a duty to comply with numerous DOD and DON directives and instructions, as well as MCOs, that prescribe policies, responsibilities, and procedures to protect and preserve the quality of the environment. Again, Chapter 5 contains further details on these military-specific requirements.

MCO P5090.2, *Environmental Compliance and Protection Manual*.

NOTES:

2 RESPONSIBILITIES

TYPES OF COMMANDERS AND OVERSEAS REQUIREMENTS

Installation Commanders

ULTIMATE RESPONSIBILITY FOR ENVIRONMENTAL programs and compliance with environmental requirements rests with Installation Commanders. "Installation Commanders," as used here, includes Marine Corps Commanding Generals/Commanding Officers (CG/COs) and Tenant Commanders at active duty and reserve installations. Installation Commanders have the staff and resources to support environmental infrastructure; furthermore, they assist Tenant and Unit Commanders aboard the installation or ship in fulfilling environmental responsibilities. Installation Commanders also track and interpret environmental requirements and communicate these requirements to other commanders aboard the installation.

OCONUS

Marine Corps activities in foreign countries are not, in general, subject to United States procedural requirements. Instead, the DOD Overseas Environmental Baseline Guidance Document (OEBGD) and the applicable country-



specific Final Governing Standards (FGS) establish policy for Marine Corps facilities in foreign countries. The country-specific FGS are prepared by the DOD Environmental Executive Agent and are based on the host nation's environmental requirements and the OEBGD. Currently, the only existing FGS applicable to Marine Corps installations are the Japan Environmental Governing Standards (JEGS).

As a commander of units deployed to an installation overseas, you must comply with the FGS established for the host country and should contact the appropriate Commander in Chief (CinC) to seek any unique environmental requirements of the host country.

Operational Commanders

Unit Commanders, who oversee specific Marine Corps operations, are responsible for understanding and complying with applicable environmental requirements. These commanders ensure that their personnel are provided with needed environmental training, that coordination with an installation's or ship's environmental office is maintained, and that actions are implemented to improve their command's environmental performance.

The remainder of this guide explains the environmental responsibilities you may have, depending on the scope of your command and the activities that your command carries out in fulfilling its mission.

Checklists

On the following pages, you will find commander-specific checklists. Identify the checklist that pertains to your command for a summary of your environmental responsibilities.

CHECKLIST FOR INSTALLATION & TENANT COMMANDERS

ENVIRONMENTAL PROGRAM	
<input type="checkbox"/>	Publish an environmental policy statement.
<input type="checkbox"/>	Publish an environmental compliance and protection standard operating procedures (ECPSOP) document, installation instructions, and/or base/station orders to implement mandated environmental programs.
<input type="checkbox"/>	Plan, program, and budget for the resources and personnel needed to ensure environmental compliance.
<input type="checkbox"/>	Coordinate Marine Corps environmental compliance and protection programs with appropriate Federal, state, and local agencies and with appropriate private organizations and individuals.
<input type="checkbox"/>	Use and update CompTRAK and other data management systems for tracking environmental compliance projects.
<input type="checkbox"/>	Respond to Notices of Violation (NOVs) or similar assertions of noncompliance.
<input type="checkbox"/>	Maintain a program to identify training needs and general awareness training.
<input type="checkbox"/>	Organize, as needed, a base/station Environmental Compliance Review Board (ECRB) to consider current environmental compliance and protection issues.
<input type="checkbox"/>	Use the Environmental Compliance Evaluation (ECE) program for tracking compliance status. Implement a Plan of Action and Milestones (POA&M) for all ECE Findings and Issues.
<input type="checkbox"/>	Request briefings on Self-Audit results as part of the ECE process. The evaluations should cover all units and tenants within your fenceline.
<input type="checkbox"/>	Ensure that the environmental office regularly communicates with CMC(LF), Marine Corps Regional Environmental Coordinators (RECs), and other entities to ensure the timely coordination of environmental issues.
<input type="checkbox"/>	Ensure that the legal office reviews environmental permitting documents and is involved in negotiations for compliance agreements and consent orders.

CHECKLIST FOR INSTALLATION

AND TENANT COMMANDERS

<input type="checkbox"/> Track Federal, state, and local regulatory changes. Be sure to receive prompt briefings on significant changes.
PUBLIC INVOLVEMENT
<input type="checkbox"/> Maintain and distribute accurate fact sheets or news releases regularly about facility environmental activities and before beginning a project or raising an issue.
<input type="checkbox"/> Provide a contact person and subject matter experts to expedite the process of answering questions.
<input type="checkbox"/> Be aware of any organized environmental groups interested in your installation.
<input type="checkbox"/> Use all available communications media (e.g., television, radio, newspapers, commander's policy statements, and public tours/briefings) to enhance the installation community's environmental awareness and ethic. New employee briefings should address environmental programs on the installation.
<input type="checkbox"/> Ensure that the installation Public Affairs Office (PAO) has a proactive program for informing the local community about the positive environmental achievements of the installation. Appropriate public participation programs should be in place for compliance with NEPA, CERCLA, and specified CETEP requirements.
AIR QUALITY
<input type="checkbox"/> Become familiar with air permit requirements applicable to the installation, the conditions included in the permits, and the compliance of the installation with regard to the permit conditions. Operate all regulated sources in compliance with these permits.
<input type="checkbox"/> Implement procedures to eliminate ozone-depleting substance (ODS) emissions to the atmosphere and to comply with Marine Corps ODS policy.

<input type="checkbox"/> Ensure that motor vehicles and other mobile sources are in compliance with applicable emission standards.
<input type="checkbox"/> Implement a program to acquire alternate fuel vehicles (AFVs) if the installation is located in an ozone nonattainment area or in a metropolitan statistical area (with a population of 250,000 or more).
<input type="checkbox"/> If the installation is in a nonattainment area, include SIP conformity determination documentation in the NEPA documentation.
<input type="checkbox"/> Use and dispose of emissions reduction credits (ERCs) in a manner consistent with procedures in MCO P5090.2.
ASBESTOS
<input type="checkbox"/> Maintain a current asbestos management plan based on a facility inventory assessment.
<input type="checkbox"/> Implement procedures to ensure the prompt repair or replacement and disposal of damaged asbestos-containing materials.
<input type="checkbox"/> Ensure that all school buildings are inspected for asbestos-containing materials and implement abatement procedures, as necessary.
<input type="checkbox"/> If asbestos is left in place in any structures, develop and maintain an operation and maintenance plan that includes procedures for personnel who may be exposed to asbestos.
<input type="checkbox"/> Train and certify all asbestos workers.
<input type="checkbox"/> Apply control measures and monitoring procedures, as required by Occupational Safety and Health Administration (OSHA), for operation, maintenance, and construction activities that might disturb asbestos-containing materials.

CHECKLIST FOR INSTALLATION

AND TENANT COMMANDERS

DRINKING WATER
<input type="checkbox"/> File applications for required Federal, state, and local permits and maintain compliance with all applicable requirements.
<input type="checkbox"/> Identify and implement all water conservation projects with a 10-year or less payback period.
<input type="checkbox"/> Notify personnel residing or working in areas served by water containing (1) constituents exceeding maximum contaminant levels (MCLs) or (2) lead and copper in amounts higher than allowed. Implement mitigation measures, where appropriate.
<input type="checkbox"/> Maintain a distribution system operation and maintenance program.
<input type="checkbox"/> Maintain compliance with underground injection control/well-head/watershed protection programs of Federal, state, or regional regulatory agencies.
EMERGENCY PLANNING AND RESPONSE
<input type="checkbox"/> Ensure that applicable emergency response plans are developed, certified, implemented, coordinated with local authorities, and updated, as necessary.
<input type="checkbox"/> Train appropriate personnel, including tenants, in accordance with all requirements to implement the plans and maintain current training records.
<input type="checkbox"/> Maintain sufficient equipment and materials to implement the emergency and contingency plans.
<input type="checkbox"/> Respond promptly to all spills and submit the appropriate reports to Federal, state, and local authorities for all reportable spills.
<input type="checkbox"/> Appoint an installation emergency coordinator and a representative to the Local Emergency Planning Committee (LEPC).
<input type="checkbox"/> Determine whether the installation meets the requirements for Toxic Release Inventory (TRI) reporting and, if so, annually submit TRI forms.

HAZARDOUS WASTES, SUBSTANCES, & MATERIALS
<input type="checkbox"/> Maintain a current Installation HW Management Plan that identifies the amount of HW generated, sources, and disposal methods.
<input type="checkbox"/> If the installation is required to have a RCRA Part B permit, know the status of the permit and whether or not the installation, including tenant organizations, is in compliance with all permit conditions.
<input type="checkbox"/> Maintain an HW minimization program, in accordance with the installation pollution prevention program, that meets USMC goals for reducing HW generation.
<input type="checkbox"/> Ensure that all activities are in compliance with DOD, Federal, state, and local occupational safety and health requirements, including medical monitoring, training, hazard communication, HM management, and personnel protection.
<input type="checkbox"/> Ensure that HW is managed, transported, and disposed of properly.
<input type="checkbox"/> Ensure that activities for RCRA corrective action are coordinated with IR program activities.
HISTORIC/ARCHAEOLOGICAL RESOURCE PROTECTION
<input type="checkbox"/> Designate and adequately train a cultural resources specialist if historic or archaeological resources exist on your facility.
<input type="checkbox"/> Conduct surveys, as appropriate, to locate, inventory, and protect significant archaeological resources.
<input type="checkbox"/> Provide for the identification and repatriation of Native American/Native Hawaiian remains and associated cultural items.
<input type="checkbox"/> Provide for the professional identification, evaluation, inventory, nomination, and protection of installation resources that appear to be eligible for the National Register of Historic Places (NRHP).

CHECKLIST FOR INSTALLATION

AND TENANT COMMANDERS

- ☐ Maintain the Integrated Cultural Resources Management Plan (ICRMP) and integrate ICRMP with other planning documents and routine procedures applicable to activity projects and programs.
- ☐ Consult with the State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), Native Americans, Native Hawaiians, and the public whenever proposed undertakings may have an effect on NRHP resources; enter into a memorandum of agreement (MOA), if necessary, regarding the mitigation of such effects.

INSTALLATION RESTORATION (IR)

- ☐ Know the National Priority List (NPL) status of the installation.
- ☐ Manage potentially contaminated sites according to records of decision (RODs) and Federal facility agreement (FFAs) with regulatory agencies.
- ☐ Establish a public participation program that includes a Community Relations Plan and a Technical Review Committee (TRC) or Restoration Advisory Board (RAB). Inform CMC(LF) and EFDs of all public affairs actions.
- ☐ Prepare long-term budget projections for conducting any operation, maintenance, or monitoring after implementing remedial actions.
- ☐ Prioritize IR program efforts using risk management or relative risk so that the most hazardous sites are cleaned up first. For NPL sites, coordinate with the Agency for Toxic Substances and Disease Registry (ATSDR) during the preparation of health assessments.
- ☐ Check all real estate transactions/construction projects to ensure that HW encumbrances do not exist.

MEDICAL AND INFECTIOUS WASTE

- ☐ Ensure that infectious waste is managed to protect human health in compliance with Naval Bureau of Medicine and Surgery (BUMED) and OSHA requirements, as well as with state and local medical and infectious waste regulations.
- ☐ If your command is located in a foreign country, infectious waste must be managed to meet applicable Status-of-Forces Agreement (SOFA) requirements, the Overseas Environmental Baseline Guidance Document (OEBGD), or applicable Federal Guidance Standards (FGS), whichever is most stringent.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

- ☐ Ensure that NEPA analysis and documentation procedures are initiated at the earliest stages of all project and activity planning, including efforts to involve the public.
- ☐ Ensure that command activities maximize the beneficial uses of the environment without degradation, risk to health and safety, disproportionate impacts on minority and low-income populations, or other undesirable consequences.
- ☐ Ensure that Federal actions preserve important historic, cultural, and natural aspects of our national heritage, and achieve a balance between resource use and development within a specific ecosystem's capacity.
- ☐ Establish an installation Environmental Impact Review Board (EIRB) that meets regularly to review environmental documents and to recommend appropriate courses of action.
- ☐ Ensure commitment to Finding of No Significant Impact/Record of Decision (FONSI/ROD) conclusions and to any mitigation and monitoring requirements established through the NEPA process.

NATURAL RESOURCES

- ☐ Ensure that natural resources personnel participate in the EIRB.

CHECKLIST FOR INSTALLATION

AND TENANT COMMANDERS

☐ If the installation has custody of property (e.g., land, water, forest, wetlands, fish, wildlife, coastal, floodplains) suitable for natural resources conservation and management, prepare and implement a comprehensive Integrated Natural Resources Management Plan (INRMP) based on ecosystem management principles.

☐ Ensure that agricultural leases, commercial forests, or hunting programs are managed in accordance with the INRMP.

☐ Implement programs to reduce the potential for collisions between aircraft and birds or other animals if the installation has a flying mission.

☐ Request appropriate consultations under the Endangered Species Act (ESA) from the United States Fish and Wildlife Service (USF&WS) or National Marine Fisheries Service (NMFS). Ensure that the INRMP addresses the management of threatened, endangered, or other special interest species present on the facility.

NOISE

☐ Identify all noise sources on the installation and any noise-sensitive receptors.

☐ Establish procedures for limiting on-base high noise level operations and for reducing off-base noise levels, as required by local law whenever possible without degrading safety and mission requirements.

☐ Develop procedures for responding to on- and off-installation noise complaints.

☐ Soundproof, whenever feasible, Marine Corps-owned/-operated schools, hospitals, and housing affected by military operations.

☐ Procure low noise emission products whenever feasible. Consider noise problems when planning and siting noise-generating equipment such as engine test stands. Give full consideration to noise-alleviating measures such as remote siting, sound suppression equipment, and aviation buffer zones.

☐ Involve the safety office in matters related to noise exposure.

☐ Locate noise-sensitive housing and other developments away from major noise sources.

PESTICIDE POLLUTION PREVENTION

☐ Maintain and implement a Pest Management Plan (PMP) that establishes an Integrated Pest Management (IPM) program to minimize pesticide and herbicide use, and manage all pest operations/applications in accordance with DODI 4150.7 and applicable Federal, state, and local laws and regulations.

☐ Ensure that wastewaters discharged from pesticide mixing facilities are in compliance with applicable pretreatment or National Pollutant Discharge Elimination System (NPDES)-permit requirements and other applicable Federal, state, or local requirements.

POLLUTION PREVENTION

☐ Develop and implement an active pollution prevention program to limit hazardous material use and to substitute less hazardous or nonhazardous materials.

☐ Develop an integrated pollution prevention management team.

☐ Ensure that the installation has developed and implemented a pollution prevention plan.

☐ Comply with EPCRA reporting requirements.

☐ Implement a Hazardous Material Consolidation Program (HCP).

☐ Ensure that appropriate personnel receive pollution prevention training and awareness education.

☐ Develop or participate in a pollution prevention awards program.

CHECKLIST FOR INSTALLATION

AND TENANT COMMANDERS

<input type="checkbox"/> Consider pollution prevention solutions to compliance issues.
<input type="checkbox"/> Ensure that the pollution prevention concept is integrated into all other pertinent environmental program areas.
POLYCHLORINATED BIPHENYLS (PCBs)
<input type="checkbox"/> Ensure that PCBs and PCB-containing items are managed according to applicable Federal and state regulations.
<input type="checkbox"/> Survey and document the PCB content of all transformers and other equipment.
<input type="checkbox"/> Develop and implement procedures to contain and clean up PCB spills and to report PCB releases when the spill exceeds the thresholds established in Federal regulations.
<input type="checkbox"/> Register all PCB transformers and equipment with cognizant fire departments.
<input type="checkbox"/> Update the PCB elimination plan annually.
<input type="checkbox"/> Ensure that PCB handlers are trained in regulatory requirements and personal protection procedures.
<input type="checkbox"/> Prepare an annual inventory of all PCBs and PCB-containing items on the installation and of all those items sent off site for disposal during the year.
RADON
<input type="checkbox"/> Test Marine Corps buildings and housing units occupied over 4 hours per day for the presence of radon gas.
<input type="checkbox"/> Initiate appropriate radon mitigation actions for structures with radon levels exceeding 4 picocuries per liter (pCi/L).
<input type="checkbox"/> Incorporate appropriate radon reduction techniques into the design and construction phases of new structures where

necessary because of regulatory requirements, or where indicated by historical data or geologic conditions.
SOLID WASTE (SW) AND RESOURCE RECOVERY
<input type="checkbox"/> Obtain and comply with all necessary SW permits, as well as Federal and state regulations.
<input type="checkbox"/> Develop, implement, and maintain a SW Management Plan.
<input type="checkbox"/> Identify markets and economically recyclable wastes, or reuse these wastes.
<input type="checkbox"/> Implement or participate in a Qualified Recycling Program (QRP), ensure that excluded materials are not sold through the QRP, and develop and maintain a QRP accounting system.
<input type="checkbox"/> Conduct general awareness training for all personnel with regard to recycling opportunities and specify SW disposal rules and regulations.
UNDERGROUND STORAGE TANKS (USTs)
<input type="checkbox"/> Identify the compliance status of each tank on the installation. Regulated tanks should be registered with the appropriate state agency.
<input type="checkbox"/> Ensure that all new tanks have overfill protection or containment and that tanks and pipes have leak detection and corrosion protection systems.
<input type="checkbox"/> Perform inventory control or leak detection (as appropriate) for all regulated tanks. Investigate and report spills and releases in accordance with 40 Code of Federal Regulations (CFR) Part 280.
<input type="checkbox"/> Ensure that all abandoned and unneeded USTs are closed, preferably through removal. Maintain a plan for upgrading or removing all tanks that do not meet the 1998 standards. Immediately repair or take out of service tanks that leak.

CHECKLIST FOR INSTALLATION

AND TENANT COMMANDERS

WATER QUALITY

- ☐ Identify the sources of all wastewater including surface discharges, discharges to publicly-owned treatment works (POTWs), and storm water discharges.
- ☐ Ensure compliance with the provisions of all existing NPDES permits, state and local storm water control and coastal zone requirements, consent orders, and/or compliance schedules.
- ☐ Ensure that wastewater treatment facilities are adequately maintained and staffed by certified operators.
- ☐ Ensure compliance with the POTW's pretreatment program.
- ☐ Implement a Storm Water Pollution Prevention Plan (SWPPP), including Best Management Practices (BMPs), to control nonpoint source discharges.
- ☐ Obtain all necessary permits for construction and land disturbing activities.
- ☐ Reduce or eliminate wastewater treatment needs by eliminating or reducing the volume of pollutants at the source.

NOTES:

NOTES:

CHECKLIST FOR OPERATIONAL COMMANDERS*

AIR QUALITY	CA	CS	CSS	AV
<input type="checkbox"/> Become familiar with all air emission permits for which your command is responsible, the conditions included in the permits, and the compliance of the unit with regard to the permit conditions. Air emission permits may need to be obtained for solvent part washers, solvent degreasers, engine test cells, arresting gear engines, painting, depainting, paint booths, blasting operations, generators, compressors, and fueling operations.	■	■	■	■
<input type="checkbox"/> Operate all regulated sources (e.g., parts washers) in compliance with these permits, including record keeping, reporting, and monitoring.	■	■	■	■
<input type="checkbox"/> Coordinate the registration of tactical equipment with the installation.	■	■	■	■
<input type="checkbox"/> Comply with the installation's ozone-depleting substance (ODS) procedures and Marine Corps ODS policy, including appointment of an ODS coordinator, training for personnel maintaining ODS-containing equipment (40 CFR 82), ODS-release prohibitions, ODS-containing equipment disposition, and acquisition records.		■	■	■
<input type="checkbox"/> Comply with the installation's procedures to minimize fugitive dust emissions during maneuvers.		■		
ASBESTOS				
<input type="checkbox"/> Become familiar with the installation operation and maintenance plan, if asbestos is left in place in any structures used by the unit.	■	■	■	■
<input type="checkbox"/> Comply with the installation's procedures for disposal of asbestos-containing material (e.g., brakes).			■	■

* Operational commanders include Combat Arms (CA), Combat Support (CS),

CHECKLIST FOR OPERATIONAL COMMANDERS

EMERGENCY PLANNING AND RESPONSE	CA	CS	CSS	AV
<input type="checkbox"/> Ensure that personnel are trained to recognize an emergency (potential safety or health hazard from fire, explosion, or chemical exposure) and to notify the proper response authorities (First Responder Awareness Level).	■	■	■	■
<input type="checkbox"/> Train appropriate personnel for emergency response, if personnel have emergency response responsibilities.	■	■	■	■
<input type="checkbox"/> Maintain current training records.	■	■	■	■
<input type="checkbox"/> Maintain sufficient equipment and materials to implement the emergency and contingency plans.	■	■	■	■
<input type="checkbox"/> Respond promptly to all spills and submit the appropriate reports to the installation authorities.	■	■	■	■
<input type="checkbox"/> Ensure that the installation is aware of changes in operations or equipment so that emergency plans can be updated.	■	■	■	■
HAZARDOUS WASTES, SUBSTANCES, & MATERIALS				
<input type="checkbox"/> Comply with the HW requirements in the current installation HW Management Plan.	■	■	■	■
<input type="checkbox"/> Comply with HM requirements.	■	■	■	■
<input type="checkbox"/> Comply with the installation's HW minimization program.	■	■	■	■
<input type="checkbox"/> Ensure that employees have access to a material safety data sheet (MSDS) for each HM product used in the unit.	■	■	■	■
<input type="checkbox"/> Ensure that all HM/HWs are properly labeled and routinely inspected.	■	■	■	■

Combat Service Support (CSS), and Aviation (AV).

CHECKLIST FOR OPERATIONAL COMMANDERS

HWs, HSs, & HMs (continued)	CA	CS	CSS	AV
<input type="checkbox"/> Ensure that all operating personnel receive HM/HW training, including the Occupational Safety and Health Administration (OSHA) safety and health training. The training must be documented.	■	■	■	■
<input type="checkbox"/> Ensure that HW allowable periods for the retention of containers holding HW are not exceeded and that containers are inspected weekly.	■	■	■	■
<input type="checkbox"/> Ensure that all operating personnel receive HM/HW training, including (1) OSHA Hazard Communication (29 CFR 1910.1200); (2) OSHA Occupational Safety and Health Standards, Emergency Response to Hazardous Substance Releases, for personnel assigned to emergency response operations (29 CFR 1910.120(q)); and (3) RCRA Hazardous Waste Personnel Training (40 CFR 265.16) for interim status facilities, permitted facilities, and large-quantity generators. The training must be documented.	■	■	■	■
HISTORIC/ARCHAEOLOGICAL RESOURCE PROTECTION				
<input type="checkbox"/> Ensure that activities that are performed near cultural resources (e.g., maneuvering/digging in sensitive areas, disturbing/removing artifacts) comply with the Integrated Cultural Resources Management Plan (ICRMP).	■	■	■	■
<input type="checkbox"/> Ensure that personnel are trained to respond properly when they discover previously unknown cultural resources.	■	■	■	■
INSTALLATION RESTORATION (IR)				
<input type="checkbox"/> Ensure that activities performed near IR sites do not impact the environment or public health.	■	■	■	■

CHECKLIST FOR OPERATIONAL COMMANDERS

MEDICAL AND INFECTIOUS WASTE	CA	CS	CSS	AV
<input type="checkbox"/> Provide accessible facilities that can receive and store infectious waste.	■	■	■	■
<input type="checkbox"/> Ensure that the packaging, handling, storage, transport, treatment, and disposal of infectious waste is managed in compliance with Naval Bureau of Medicine and Surgery (BUMED) and OSHA requirements, as well as with state and local medical and infectious waste regulations.	■	■	■	■
<input type="checkbox"/> If your command is located in a foreign country, infectious waste must be managed to ensure the protection of human health and the environment and to meet any applicable Status-of-Forces Agreement (SOFA) requirements.	■	■	■	■
<input type="checkbox"/> Ensure that infectious and medical wastes are properly managed.	■	■	■	■
<input type="checkbox"/> Ensure that personnel who may be exposed to infectious or medical waste receive appropriate training and that the training is documented.	■	■	■	■
NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)				
<input type="checkbox"/> Initiate, in coordination with the installation, NEPA analysis and documentation procedures at the earliest stages of all project and activity planning.	■	■	■	■
<input type="checkbox"/> Ensure that Federal actions preserve important historic, cultural, and natural resources of our national heritage.	■	■	■	■
<input type="checkbox"/> Ensure commitment to finding of no significant impact/record of decision (FONSI/ROD) conclusions and any mitigation and monitoring requirements established through the NEPA process.	■	■	■	■

CHECKLIST FOR OPERATIONAL COMMANDERS

NEPA (continued)	CA	CS	CSS	AV
<input type="checkbox"/> Ensure that upon implementing a proposed action, the proposed action and the environment have not changed significantly since completion of the environmental assessment/ environmental impact statement (EA/EIS).	■	■	■	■
NATURAL RESOURCES				
<input type="checkbox"/> Ensure that activities performed near property (land and water) suitable for natural resources conservation and management (e.g., wetlands, coastal areas, threatened or endangered species) comply with the Integrated Natural Resources Management Plan (INRMP).	■	■	■	■
NOISE				
<input type="checkbox"/> Ensure that operations involving noise sources (e.g., large-scale exercises, ranges, low-flying aircraft, test cells, hush houses, jets) comply with the installation's procedures for limiting on-base high noise level operations and for reducing off-base noise levels.	■	■	■	■
POLLUTION PREVENTION				
<input type="checkbox"/> Comply with the installation's pollution prevention program.		■		■
<input type="checkbox"/> Assist the installation, as requested, with EPCRA reporting.	■	■	■	■
<input type="checkbox"/> Participate in the installation's Hazardous Material Consolidation Program (HCP), including controlling, tracking, and reducing the variety and quantities of HMs.	■	■	■	■

CHECKLIST FOR OPERATIONAL COMMANDERS

SOLID WASTE (SW) AND RESOURCE RECOVERY	CA	CS	CSS	AV
<input type="checkbox"/> Comply with the installation's SW Management Plan.	■	■	■	■
<input type="checkbox"/> Segregate scrap metal, aluminum cans, high-grade paper, and corrugated containers for recycling, as required.	■	■	■	■
<input type="checkbox"/> Ensure that, when feasible, oil and HWs are recycled and reused.	■	■	■	■
<input type="checkbox"/> Ensure that all personnel receive general awareness training for recycling opportunities and SW disposal rules.	■	■	■	■
UNDERGROUND STORAGE TANKS (USTs)				
<input type="checkbox"/> Perform inventory control or leak detection (as appropriate) for all regulated tanks. Maintain records for all tank monitoring.		■	■	■
<input type="checkbox"/> Report spills, releases, and equipment malfunctions to the installation.		■	■	■
WATER QUALITY				
<input type="checkbox"/> Inspect storm water and spill containment, and record any necessary draining.	■	■	■	■
<input type="checkbox"/> Investigate and report spills and releases to installation authorities.	■	■	■	■
<input type="checkbox"/> Inspect oil/water separators and wash racks, and request any necessary maintenance.	■	■	■	■

3 TECHNICAL ASSISTANCE

INTRODUCTION

INSTALLATION AND OPERATIONAL COMMANDERS CAN obtain technical assistance from installation environmental offices, Marine Corps Regional Environmental Coordinators (RECs), and Naval Facility (NAVFAC) offices. The environmental offices are staffed by environmental subject matter experts, and manage installation environmental infrastructure and projects. Marine Corps RECs offer regional guidance on environmental issues and interface with regional Federal and state regulatory agencies. NAVFAC offices supply architectural/engineering assistance for environmental-related projects, including the IR program. This chapter provides contact information for these resources.

MARINE CORPS ENVIRONMENTAL OFFICES

The following list of environmental offices is organized by major command and by state:

HQMC

Commandant of the Marine Corps
Code (LFL)
Headquarters, USMC
2 Navy Annex
Washington, DC 20380-1775
COM: (703) 695-8541
DSN: 426-8541
FAX COM: (703) 695-8550
DSN FAX: 426-8550

MARFORLANT

Commanding General
MARFORLANT
1468 Ingram Street
Norfolk, VA 23551
COM: (757) 836-1500
DSN: 835-1500
FAX: 835-1535

MARFORPAC

Commanding General
MARFORPAC
G-8 Division
PO Box 64112
Camp H. M. Smith, HI 96861-4112
COM: (808) 477-8476
DSN: 477-8476
FAX: (808) 477-8748

Marine Forces Reserve

Commander
Marine Forces Reserve
Facilities
4400 Dauphine Street
New Orleans, LA 70146-5400
COM: (504) 678-6886
DSN: 678-6886
FAX COM: (504) 678-6823

MARCORSYSCOM

Commander
Marine Corps Systems Command
2033 Barnett Avenue, Suite 315
Quantico, VA 22134-5010
COM: (703) 784-2412
DSN: 278-2412
FAX COM: (703) 784-3792

ARIZONA

MCAS Yuma
Commanding General
MCAS Yuma
Environmental Department
Bldg. 228, Box 99110
Yuma, AZ 85369-9110
COM: (520) 341-2282
DSN: 951-2282
FAX COM: (520) 341-5216
FAX DSN: 951-5216

CALIFORNIA

MCLB Barstow
Commanding General
MCLB Barstow (B570)
Install. & Logistics Dept.
Environmental Department
WH-3, 11th Street
PO Box 110500
Barstow, CA 92311-5013
COM: (760) 577-6649/6523
DSN: 282-6523
FAX COM: (760) 577-6256
FAX DSN: 282-6256

MCMWTC Bridgeport
Commanding Officer
MCMWTC Bridgeport
Highway 108, Bldg. 4048
PO Box 5002
Bridgeport, CA 93517-5002
Attn: Environmental Office
COM: (619) 932-7761 x 332
DSN: 985-7332
FAX COM: (619) 932-7706
FAX DSN: 985-7293

MCAS El Toro
Commanding General
MCAS El Toro
Env. Dept. Code 1AU
Bldg. 368, PO Box 95000
Santa Ana, CA 92709-5001
COM: (949) 726-2772, 3705
DSN: 997-2772, 3705
FAX COM: (949) 726-6586
FAX DSN: 997-6586

MCAS Miramar
Commanding Officer
MCAS Miramar
Environment & Safety Dept.
45249 Miramar Way
Bldg. 6311, PO Box 452013
San Diego, CA 92145-2013
COM: (619) 577-1137
DSN: 267-1137
FAX COM: (619) 577-4200

MCAS Camp Pendleton
Commanding Officer
MCAS Camp Pendleton
Bldg. 23T26, Box 555151
Camp Pendleton, CA 92055
COM: (760) 725-8492/8460
DSN: 365-8492
FAX COM: (760) 763-0014
FAX DSN: 365-0014

MCB Camp Pendleton
Commanding General
MCB Pendleton
AC/S Environmental Security
Bldg. 22165, Box 555008
Camp Pendleton, CA 92055-5008
COM: (760) 725-9771
DSN: 365-9771
FAX COM: (760) 725-0207

MCRD San Diego
Commanding General
MCRD San Diego
Director of Facilities
4600 Belleau Avenue
Bldg. 224, Public Works
San Diego, CA 92140

COM: (619) 524-4360
 DSN: 524-4363
 FAX COM: (619) 524-4361
 FAX DSN: 524-4361

MCAF Tustin
 Commanding Officer
 MCAF Tustin
 Code 2EA
 Bldg. 4, PO Box 105001
 Santa Ana, CA 92710-5001
 COM: (949) 726-7334
 DSN: 997-7334
 FAX COM: (949) 726-7487
 FAX DSN: 997-7487

MCAGCC Twentynine Palms
 Commanding General
 MCAGCC Twentynine Palms
 NREADivision
 Bldg. 1451
 PO Box 788110
 Twentynine Palms, CA 92278-8110
 COM: (760) 830-7396
 DSN: 957-7396
 FAX COM: (760) 830-5718
 FAX DSN: 957-5718

DISTRICT OF COLUMBIA

Marine Barracks
 Commanding Officer
 Marine Barracks
 (S-4)
 8th & I Streets, SE
 Washington, DC 20390-5000
 COM: (202) 433-2014

DSN: 288-2014
 FAX COM: (202) 433-0473
 FAX DSN: 288-0473

FLORIDA

Blount Island Command
 Commanding Officer
 Blount Island Command
 (901-1)
 5880 Channel View Blvd.
 Jacksonville, FL 32226-3404
 COM/DSN: (904) 696-5004
 FAX COM: (904) 696-5107

GEORGIA

MCLB Albany
 Commanding General
 MCLB Albany
 A490
 814 Radford Blvd.
 Albany, GA 31704-1128
 COM: (912) 439-5637
 DSN: (912) 567-5637
 FAX COM: (912) 439-5444

HAWAII

MCB Hawaii
 Commanding Officer
 MCB Hawaii
 Attn: LE
 Bldg. 1360, PO Box 63002
 Kanehoe Bay, HI 96863-3002
 COM: (808) 257-5640 x 234
 DSN: 457-5640
 FAX COM: (808) 257-2794

MISSOURI

MCSA Kansas City
 Commanding Officer
 MCSA Kansas City
 15430 Andrews Road
 Kansas City, MO 64147-1309
 COM: (816) 843-3745
 DSN: 894-3745
 FAX COM: (816) 843-3756

NORTH CAROLINA

MCAS Cherry Point
 Commanding General
 MCAS Cherry Point
 Environmental Affairs Dept.
 Bldg. 4223
 PSC Box 8006
 Cherry Point, NC 28533-8006
 COM: (252) 466-4599
 DSN: 582-4599
 FAX COM: (252) 466-2000

MCB Camp Lejeune
 Commanding General
 MCB Camp Lejeune
 Attn: EMD/ECD/ETB
 Bldg. 1, PSC 20004
 Camp Lejeune, NC 28542-0004
 COM: (910) 451-5878
 DSN: 484-5878
 FAX COM: (910) 451-1164
 FAX DSN: 484-1164

MCAS New River
 Commanding Officer
 MCAS New River

Safety and Environmental Dept.
 AS2-11, 2nd Floor
 PSC Box 21001
 Jacksonville, NC 28545-1001
 COM: (910) 450-6143
 DSN: 750-6143
 FAX COM: (910) 450-6488

SOUTH CAROLINA

MCAS Beaufort
 Commanding Officer
 MCAS Beaufort
 NREA S-4
 Gieger Blvd., Bldg. 601
 PO Box 55001
 Beaufort, SC 29904-5001
 COM: (843) 522-7907/7372
 DSN: 832-7884
 FAX COM: (843) 522-7032

MCRD Parris Island
 Commanding General
 MCRD Parris Island
 AC/S I&L (NREAO)
 Bldg. 154, PO Box 19001
 Parris Island, SC 29905-9001
 COM: (843) 525-3102/2663
 DSN: 832-3102, 2663
 FAX COM: (843) 525-3401/2616

VIRGINIA

HQBN HQMC
 Commanding Officer
 HQBN HQMC Henderson Hall
 Facilities Engineering Dept.
 1555 Southgate Road

Arlington, VA 22214-5000
 COM: (703) 614-1900
 DSN: 224-1900
 FAX COM: (703) 607-8465
 FAX DSN: 224-3735

MCB Quantico
 Commanding General
 MCB Quantico
 (B046)
 3040 McCawley Avenue, Suite 2
 Quantico, VA 22134-5053
 COM: (703) 784-4030
 DSN: 278-4030
 FAX COM: (703) 784-4953
 FAX DSN: 278-4953

JAPAN

MCB Camp Butler
 Commanding General
 MCB Camp Butler
 Camp Butler, Okinawa
 Bldg. 364, Unit 35001
 FPO AP 96373-5001
 COM: 011 (81) 611-745-7355
 DSN: 645-7355
 FAX COM: 011 (81) 98-892-7168

MCAS Iwakuni
 Facilities Department
 Attn: Environmental Division
 Bldg. 168
 PSC 561, Box 1871
 FPO AP 96310-1871
 COM: 011 (81) 6117-53-3388
 DSN: 253-3388
 FAX COM: 011 (81) 6117-53-6218
 FAX DSN: 253-6218

MARINE CORPS RECs

Marine Corps RECs are general officers who provide senior leadership on key environmental issues. Marine Corps RECs serve as a focal point for issues and discussions with the other services within those EPA regions in which the Marine Corps has a significant presence—Regions III, IV, and IX (see map on page 150).

RECs are the primary interface with regional Federal and state regulatory agencies, ensuring that agreed-upon positions are presented to state lawmakers and to Federal, state, and local regulatory officials. Marine Corps RECs keep affected installations and other Marine Corps commands informed of agreements, permit conditions, and responses to regulatory agencies within their regions. Questions for RECs should be addressed to the CG/CO. The Marine Corps RECs are identified below:

EPA Region III

United States Marine Corps
 Commanding General
 Marine Corps Base
 Regional Environmental
 Coordinator, Region III
 3250 Catlin Avenue
 Quantico, VA 22134-5001
 COM: (703) 784-4030
 Fax: (703) 784-4953
 DSN: 278

EPA Region IV

United States Marine Corps
 Commanding General
 Attn: AC/S EMD/REC
 Marine Corps Base

Regional Environmental
 Coordinator, Region IV

PSC Box 20004
 Camp Lejeune, NC 28542-0004
 COM: (910) 451-9113
 Fax: (910) 451-9114
 DSN: 751-9113

EPA Region IX

United States Marine Corps
 Western Regional Environmental
 Coordinator, Region IX
 PO Box 555246
 Camp Pendleton, CA 92055-5246
 COM: (760) 725-2631/2635
 Fax: (760) 725-2659
 DSN: 365

NAVFAC

NAVFAC is the support organization that provides architectural/engineering assistance for environmental-related projects and technical assistance for environmental issues. The following NAVFAC contacts provide environmental support.

Naval Facilities Engineering Command (NAVFACENGCOM)

Engineering Field Divisions/Activities (EFD/EFAs)

1. Northern

Commanding Officer
Northern Division, Code 18
Naval Facilities
Engineering Command
10 Industrial Highway
Mail Stop 82
Lester, PA 19113-2090
COM: (610) 595-0567 x 115
DSN: 443-0567 x 115

2. Chesapeake

Commanding Officer
Engineering Field Activity
Chesapeake, Code 18
Washington Navy Yard
Bldg. 212
901 M Street, SE
Washington, DC 20374-5018
COM: (202) 685-3241
DSN: 325-3241

3. Atlantic

Commander
Atlantic Division, Code 18
Naval Facilities
Engineering Command
1510 Gilbert Street
Naval Base
Norfolk, VA 23511-2699
COM: (757) 322-4801
DSN: 262-4801

4. Southern

Commanding Officer
Southern Division, Code 18
Naval Facilities
Engineering Command
2155 Eagle Drive
PO Box 190010
N. Charleston, SC 29419-9010
COM: (843) 820-5600
DSN: 583-5600

5. Midwest

Commanding Officer
Midwest
Environmental Dept.
201 Decatur Avenue
Bldg. 1A
Great Lakes, IL 60088-5600
COM: (847) 688-5999
DSN: 792-5999

6. Southwest

Commanding Officer
Southwest Division, Code 18
Naval Facilities
Engineering Command
1220 Pacific Highway
San Diego, CA 92132-5190
COM: (619) 532-1396/3100
DSN: 522-1396

7. West

Commanding Officer
Engineering Field Activity
West
Bldg. 206, 1st Floor
900 Commodore Drive
San Bruno, CA 94066-5006
COM: (650) 244-2571
DSN: 494-2571

8. Pacific

Commander
Pacific Division, Code ENV
Naval Facilities
Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134
COM: (808) 471-3211
DSN: 474-3211
(Note: Dial 315 before the 7-digit DSN number if you are not in the 315 calling area.)

9. Northwest

Commanding Officer
Engineering Field Activity
Northwest, Code 18
19917 7th Avenue, NE
Poulsbo, WA 98370-7570
COM: (360) 396-0072
DSN: 744-0072

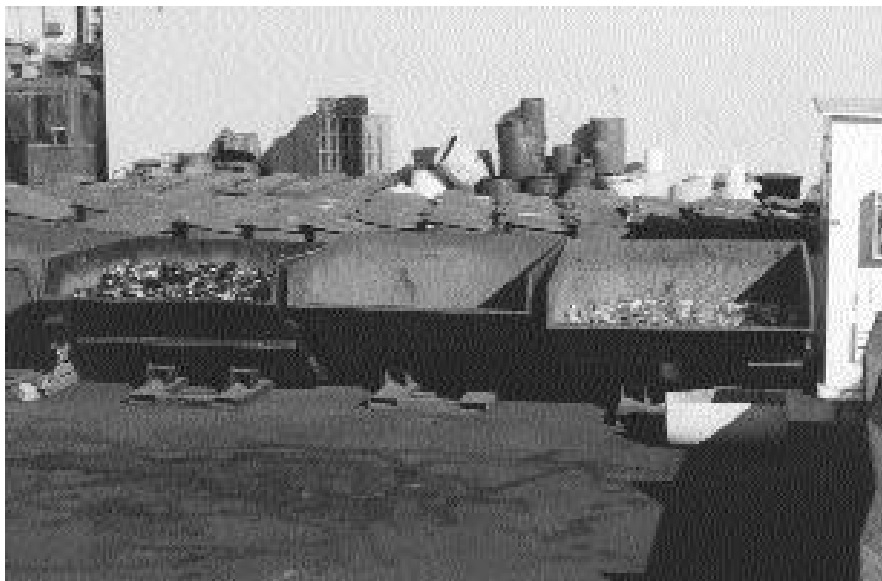
10. Mediterranean

Commanding Officer
Engineering Field Activity
Mediterranean
PSC 817, Box 51
FPO AE 09622-0051
COM: 011 (39) 081-568-0051
DSN: 430-626-4720

11. NFESC

Naval Facilities Engineering
Service Center
1100 23rd Avenue
Port Hueneme, CA 93043-4370
COM: (805) 982-5751

4 ENVIRONMENTAL PROGRAMS



INTRODUCTION

BECAUSE MOST OF THE MATERIAL IN THIS CHAPTER IS PROGRAMMATIC, it is applicable primarily to Installation Commanders. However, insofar as Operational Commanders will have to perform their activities within the parameters of these programs, some of the material does apply directly to them—e.g., Self-Audits and specific training requirements.

Your installation's environmental program should consist of seven components:

- **Environmental Compliance.** Attain and maintain environmental compliance through comprehensive management and ECEs.
- **Environmental Cleanup.** Identify and clean up past releases in a cost-effective manner that protects installation personnel, the surrounding community, and the environment.
- **Resource Conservation.** Manage resources (natural, cultural, and historic) to protect the ability of our land base to support defense requirements.
- **Pollution Prevention.** Promote pollution prevention as the primary means for achieving and maintaining environmental compliance.
- **Training, Education, and Public Outreach.** Implement efficient environmental training and education, and maintain effective communication and public outreach programs.
- **Resources and Reporting.** Program, plan, budget, and execute resources to meet environmental objectives.

ENVIRONMENTAL COMPLIANCE

Federal, state, and local statutes and regulations establish requirements to protect health and the environment, control pollution, and manage land use. EO 12088, Federal Compliance with Pollution Control Standards, October 13, 1978, requires Federal agencies to comply with applicable environmental statutes and regulations. In the past, military facilities were shielded from traditional enforcement tools by sovereign immunity (i.e., the Federal government was immune from enforcement by state and local governments). More recently, a number of environmental statutes have waived sovereign immunity. Federal, state, and local regulatory authorities routinely inspect installations to evaluate their compliance status. The Marine Corps attains and maintains environmental compliance through the ECE program, which evaluates a command's compliance, anticipates future requirements, and supports the programming of necessary resources.

Regulatory Inspections and Responses

The state regulatory agency or the EPA will generally notify you if either intends to inspect your installation. However, by law regulatory agencies are authorized to inspect Federal facilities at any time. Regulatory inspections may concentrate on one program area, such as HW management, or they may focus on compliance in several program areas, e.g., air, water, HM/HW. The frequency of inspections varies according to the EPA Federal facility inspection guidelines, the installation's permit status, program area, and previous compliance history. See Appendix A for guidelines on how to prepare for a regulatory inspection. To resolve compliance concerns, commanders can obtain assistance on technical issues from DOD environmental offices and local regulators. The EPA has established a Public Information Center (PIC), hotlines, and clearinghouses in EPA regions; Federal Facilities Coordinators assist in locating technical information or in identifying appropriate EPA personnel. See Appendix C for a list of the DOD and EPA contacts.

Once an inspection is completed, the regulatory agency will normally provide you with an exit briefing that summarizes its findings. The regulatory agency typically does not produce a written report.

If a regulatory inspection reveals that your installation is not in compliance with regulations, the regulatory agency may issue you an informal indication (oral) or a formal notice (typically a letter) of an enforcement action. As outlined specifically on pages 123–126, your command must respond appropriately to avoid undesirable environmental consequences, such as fines, consent orders, or any further adverse actions.

Informal Indication of an Enforcement Action

Often, a prompt and complete response to any informal indication of an enforcement action will defuse the potential of receiving a formal notice or may reduce the severity of any formal action taken by the regulatory agency. Upon receipt of an informal or oral indication, your command must immediately consult with counsel to determine the legal obligations. Command Office of Counsel—the Eastern Area Counsel Office (EACO) and Western Area Counsel Office (WACO)—have environmental specialists on staff to advise commanders on environmental topics.

Formal Notice of an Enforcement Action

The regulatory agency may issue your command a Notice of Noncompliance (NON), Notice of Violation (NOV), or other enforcement action notice. The notice will describe the noncompliant aspects of your operations or facility and will establish time frames to achieve compliance (but not how to achieve compliance). Generally, the regulatory agency will allow 30 days to respond to a formal notice. However, the type of enforcement action and the timetable to respond to it will vary by program area and state. Most enforcement actions can and should be negotiated and resolved between the installation and the regulatory agency.

The EPA or the state regulatory agency may seek to negotiate a compliance agreement or consent order if your installation fails to respond adequately to the enforcement action or if your installation is late in responding. Compliance agreements and consent orders are mutually agreed upon or mandated corrective action plans between the installation and regulatory agency. An immediate compliance agreement or consent order may be necessary if the regulatory agency determines that an imminent and substantial threat to human health or the environment exists.

Once your installation receives a formal notice of an enforcement action, your command must complete the following:

- Notify the Commandant of the Marine Corps, Facilities and Services Division (CMC(LF)); Counsel, and the appropriate REC through the chain of command within 5 working days of receiving any type of written enforcement action.
- Coordinate with or seek advice from your regional EFD/EFA, as necessary.
- Request assistance from Legal Counsel/Staff Judge Advocate (i.e., EACO or WACO) and other support agencies, as necessary.
- Negotiate with the regulatory agency to establish compliance requirements and timetables.
- Develop a corrective action plan.
- Take action to implement your corrective action plan.
- Prepare and submit in your next monthly update a CompTRAK report for each project requirement.

When significant environmental damage or immediate adverse publicity for the Marine Corps is likely, your command must notify CMC(LF) by telephone on the same day of the potential enforcement notification, unless reporting falls within the purview of the current version of MCO 5740.2, *Events/Incidents Reports*.

THE MARINE CORPS ECE PROGRAM

Marine Corps commanders should use the ECE program to monitor and ensure compliance. This program is a tool to reduce the potential for possible adverse actions, such as an NOV, and to minimize risks to human health and the environment.

ECE Program Components

The ECE program includes the four following components:

Benchmark ECE

The Benchmark ECE is a multi-media ECE sponsored by CMC(LF) and supported by contract personnel. Benchmark ECEs provide an independent, objective audit by a non-DOD entity. The Benchmark ECE is consistent with the EPA's Environmental Auditing Policy Statement (*Federal Register*, Vol. 51, No. 131, p. 25004—July 9, 1986) that defines environmental auditing as a systematic, documented, periodic, and objective review of facility operations and practices related to meeting environmental requirements. The Benchmark ECE also meets the provisions of DODI 4715.6, Environmental Compliance, April 24, 1996, which require an external environmental compliance assessment every 3 years. A Benchmark ECE is generally scheduled for a 2-week period to allow the evaluators sufficient time to visit several field sites and to provide a reasonably in-depth evaluation.

Benchmark Plan of Action and Milestones (POA&M)

POA&Ms fulfill the EPA audit policy, which requires a follow-up component to benchmark audits so that corrective actions are taken in response to deficiencies. Commanders are required to follow up on the deficiencies identified in the Benchmark ECE using the Benchmark POA&M to address each of the ECE findings and issues. Using the Automated Compliance Evaluation (ACE) System (see description p. 47), the Benchmark POA&M must be transmitted to CMC(LF) within 6 weeks of completing the Benchmark ECE.

POA&M Annual Validation

Each commander should conduct an annual review and verification of the POA&M based on outstanding deficiencies remaining from the Benchmark ECE. The information acquired from this review should be entered into ACE. The annual validation of the Benchmark POA&M should not be confused with the Self-Audit program.

Self-Audit Program

The Self-Audit serves as a continuous internal mechanism for Installation Commanders to assess compliance within their fenceline, including all tenant commands and activities. The Self-Audit program should be an integral part of the Commanding General's Inspection Program (CGIP). The objective of the Self-Audit is to assess annually the compliance of every activity potentially subject to an environmental requirement. Your command should use the ACE software regularly as a tool to record deficiencies, generate POA&Ms, and track compliance. Self-Audit POA&Ms are intended for installation and tenant use.

ECE Program Schedule

The ECE program operates on a 3-year cycle with the Benchmark ECE occurring at your installation every 3 years. (The next ECE program cycle for active installations is scheduled to begin in fiscal year (FY) 1999.) Specifically, for the Benchmark ECEs, the installations are split into three groups. Benchmark ECEs are performed at one third of the installations each year of the 3-year cycle. Installations submit Benchmark POA&Ms during the same year as the Benchmark ECE and POA&M Annual Validations during the remaining 2 years of the cycle. Installation or major command-sponsored Self-Audits are performed during each year of the cycle. The 3-year cycle is depicted in Figure 1 below.

THE ECE CYCLE

Installations	Sponsor	YEAR 1 (FY99)	YEAR 2 (FY00)	YEAR 3 (FY01)	Repeat Cycle...
First Third	HQMC	Benchmark ECE	POA&M Annual Validation	POA&M Annual Validation	
	Inst/Maj Cmd	Benchmark POA&M Self-Audit	Self-Audit	Self-Audit	
Second Third	HQMC	POA&M Annual Validation	Benchmark ECE	POA&M Annual Validation	
	Inst/Maj Cmd	Self-Audit	Benchmark POA&M Self-Audit	Self-Audit	
Last Third	HQMC	POA&M Annual Validation	POA&M Annual Validation	Benchmark ECE	
	Inst/Maj Cmd	Self-Audit	Self-Audit	Benchmark POA&M Self-Audit	

Figure1. THE ECECYCLE

Automated Compliance and Evaluation System (ACE)

The ACE computer software, used for tracking compliance and conducting ECEs, includes an installation-unique checklist of Federal, state, and Marine Corps policy requirements. ACE is sponsored by CMC(LF), and the checklist is updated at least annually.

The ACE system is used to record both compliance deficiencies and the command's response to those deficiencies through the POA&M. ACE is structured to support the Self-Audit program and can also be used to generate a variety of reports.



OTHER INSPECTIONS

Other nonregulatory inspections that will be conducted are not part of the established Marine Corps ECE program. These inspections may be carried out by the IGMC or Field Supply Maintenance Analysis Office (FSMAO). Your command should track these inspections using the ACE software, and should generate POA&Ms as an internal follow-up tool. Responses to other inspections and any specific requirements for them should be coordinated directly within the nonregulatory agencies.

ENVIRONMENTAL CLEANUP

Installation Restoration (IR) refers to a comprehensive DOD program designed to identify and remediate past releases of hazardous substances on DOD installations. This program parallels the national Superfund Program. The IR program differs from the ECE program in that it focuses on past operations. In addition, the IR program is funded by a special appropriation called the Environmental Restoration, Navy Account (ER,N). The Naval Facilities Engineering Command programs, manages, and budgets ER,N for the Marine Corps and Navy.

The Installation Restoration (IR) program was established in 1984 to identify, investigate, and clean up contamination on DOD properties. The IR program consists of the following key components:

- **Preliminary Assessment/Site Inspection (PA/SI).** Brief and limited investigations of facilities to determine if there are potential sources of contamination. PA/SIs have been completed on all Marine Corps in CONUS bases.

Based on PA/SI data, the EPA ranks contaminated sites using the Hazard Ranking System (HRS). The HRS addresses such factors as amount and toxicity of the contaminants, potential mobility, pathways for human exposure, and proximity of population centers. The EPA may propose and list an installation on the National Priorities List (NPL) if the HRS score is greater than 28.5.
- **Remedial Investigation/Feasibility Study (RI/FS) and Record of Decision (ROD).** The RI/FS is a more detailed study of contaminated areas and selects a proposed remedy which is documented in a ROD.
- **Remedial Design/Remedial Action (RD/RA).** In this phase of the IR program, the remedy is designed and implemented.

- **Removal Actions.** Removal Actions provide a means of responding to an immediate threat or of implementing relatively simple response actions which do not require detailed planning efforts. Removal actions may include fencing, providing alternate water supplies, removing aboveground drums, or removing buried drums.

A Federal Facility Agreement (FFA) is a formal agreement—between the DON and either the EPA or the state—that establishes objectives, responsibilities, procedures, and schedules for the RI/FS phases at NPL installations. FFAs are intended to outline the working relationship and improve communications between all parties by allowing the EPA and the state to review all work and ultimately to make the selection of any Remedial Action that is less argumentative.

After completing the RI/FS, the FFA will be reviewed and transformed into an Interagency Agreement (IAG). IAGs are required at NPL installations within 180 days after the EPA approval of the RI/FS. The IAG is a formal agreement—between the DON and either the EPA or the state—that establishes objectives, responsibilities, procedures, and schedules for remediation at NPL installations.



RESOURCE CONSERVATION

Natural resources management refers to the protection, improvement, and use of natural resources in support of the military mission, combining the best purposes to meet the needs of the military and the public. At the installation level, it is necessary to have an integrated Multiple Land Use Management Plan to achieve optimum use and benefit, while maintaining the environmental quality, ecological relationships, and aesthetic values. Land uses should be compatible. Specific programs may include the following:

- Land management;
- Endangered species protection;
- Forest management;
- Fish and wildlife management; and
- Management of outdoor recreation resources.

Cultural resources management refers to the protection of historic and archaeological resources. These resources include all buildings, districts, sites, structures, and objects of significance in history, architecture, archaeology, engineering, or culture.

Management of these sites consists of identifying them and preparing an Historic and Archaeological Resources Protection (HARP) Plan. Historic buildings or structures are generally adapted for reuse, while archaeological sites are generally marked for preservation.

Proposed actions regarding repairs, alterations, new construction, and other projects likely to affect cultural resources must account for consultation with the State Historic Preservation Office and the Advisory Council on Historic Preservation. The Marine Corps must seek out and consider the preservationist's advice, following the specific consultation

procedures detailed in 36 CFR 800. This legally mandated interagency consultation is an integral part of cultural resources management.

ENVIRONMENTAL PLANNING

The National Environmental Policy Act (NEPA) requires that consideration be given to the potential environmental impacts of major Federal actions and that these considerations be documented. The intent of NEPA is to ensure that the individual deciding to undertake a Federal action has identified all environmental impacts and has considered reasonable alternatives to the action(s). The consideration given will depend on many things, including the extent of the project itself, public involvement and concern, the extent and value of impacted resources, and any existing or potential environmental impacts.

There are three degrees of environmental consideration and associated documentation:

- **Categorical Exclusion (CatEx).** Actions which, under normal circumstances, individually or cumulatively, do not have a significant effect on the environment and for which, therefore, neither an Environmental Assessment nor an Environmental Impact Statement is required.
- **Environmental Assessment (EA).** Required for proposed actions that have the potential for adverse impacts on the environment. An EA is conducted to determine if a more detailed study is necessary. It is a brief documented assessment of the potential environmental impacts and an evaluation of those impacts in terms of significance. A Finding of No Significant Impact (FONSI) or a decision to proceed with an Environmental Impact Statement would conclude the EA.
- **Environmental Impact Statement (EIS).** The EIS must contain a full, fair, yet concise discussion of a range of reasonable alternatives, and all significant environmental impacts relating to a proposed action(s).

Despite its complexity, the purpose of NEPA is not to generate paperwork. If used correctly as a planning tool, NEPA will reduce administrative costs. NEPA is intended to provide information to the public and help public officials make decisions based on an understanding of environmental consequences, thereby facilitating appropriate actions.

POLLUTION PREVENTION APPROACH TO COMPLIANCE EFFORTS (PACE)

P2

Pollution prevention is a cross-cutting concept that is relevant to almost all other environmental program areas. The goal of pollution prevention is to reduce or eliminate pollutants in lieu of controlling them. For example, by substituting a nonhazardous cleaning compound for a hazardous one, the generation of hazardous waste at an installation and the associated compliance efforts needed to manage that waste can be reduced.

EO 12856 initiated the pollution prevention effort in the Federal government by establishing a goal for each Federal agency to reduce releases of toxic chemicals to the environment by 50 percent by 1999. The EO also calls for all Federal installations to maintain and implement pollution prevention plans and to report on hazardous material storage and toxic chemical releases.

CMC(LF) established a pollution prevention goal under the 1997 Environmental Campaign Plan. This goal is to invest 30 percent of the Marine Corps environmental management budget in pollution prevention solutions to compliance issues by the year 2000. To achieve the 30 percent goal, CMC(LF) has established the PACE program, which demonstrates Marine Corps leadership through a proactive environmental management strategy. PACE focuses on pollution prevention measures

to reduce or eliminate environmental compliance violations and to increase the prospect that the Marine Corps will continually achieve compliance with regulatory requirements.

The PACE program will have the following outcomes:

- Reduced out-year compliance and cleanup costs.
- Reduced emissions/releases of toxic chemicals to the environment.
- Increased applications of efficient business practices.

Many Marine Corps installations are also reducing hazardous chemical usage and disposal by implementing the Hazardous Material Consolidation Program (HCP) to reduce procurement, storage, and disposal costs by more effectively utilizing the items and reducing wastes that results from expired shelf lives.

TRAINING, EDUCATION, AND PUBLIC OUTREACH

Very few violations involve intentional noncompliance. Many environmental enforcement actions result from a lack of training or information concerning the requirement. Conversely, a hallmark of a well-managed environmental program is an informed and well-trained staff.

Many of the Federal environmental statutes and regulations invoke explicit job-specific training requirements. Other statutes establish implicit training requirements; that is, compliance with these statutes can occur only if the personnel responsible for the requirement receive appropriate training. The goal of these training requirements is to empower workers to perform their assigned jobs in a compliant manner

that minimizes risks to human health and the environment. This goal establishes the purpose and scope of the Comprehensive Environmental Training and Education Program (CETEP).

CETEP ensures that appropriate environmental training and information are provided at all levels of the Marine Corps in the most efficient and effective manner possible. CETEP provides information and instruction to a diverse audience that includes:

- All Marine Corps personnel (civilian and military) and their family members.
- Everyone affiliated with or affected by a Marine Corps installation.
- All Marine Corps CG/COs and members of the Senior Executive Service (SES).
- Targeted sectors of the general public.

CETEP includes provisions for establishing and implementing:

- Program development procedures based on identified needs.
- Instructional quality standards.
- Marine Corps-wide initiatives to eliminate training redundancy.
- Standards and guidelines for installation-sponsored environmental programs.
- Inspection requirements.

Under CETEP, the Marine Corps has established a CETEP coordinator network of environmental training managers, who have been designated by their installation CG/CO. In addition, for occupational fields with a high probability of environmental impact, the Marine Corps is reviewing and modifying the Individual Training Standards

(ITSs) to ensure that they include environmental considerations and requirements, as appropriate. Military Occupational Specialties (MOSs) 9954, Hazardous Material/Waste Marine, and 9631, Environmental Engineering Management Officer, were established through CETEP. Another CETEP initiative, the Chesty Brigade, provides a ready and recognizable vehicle for promoting environmental issues throughout the Marine Corps and to the public.



"CHESTY," MASCOT OF THE WASHINGTON, D.C. MARINE BARRACKS

SPECIFIC TRAINING REQUIREMENTS

Several of the environmental statutes, such as the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), require specific training and/or invoke regulations. These requirements are promulgated by the Occupational Safety and Health Administration (OSHA), including 29 Code of Federal Regulations (CFR) 1910, Occupational Safety and Health Standards, and 29 CFR 1926, Safety and Health Regulations for Construction. For employers of HM/HW handlers, these requirements may include:

- Providing safety and health training for activities with environmental risks.
- Providing workers with information on job hazards associated with HMs.
- Providing equipment (e.g., decontamination, monitoring, and personal protective) and a personal protection program.
- Maintaining a medical monitoring program.
- Maintaining fire prevention and emergency response programs.
- Providing health and safety plans for HW site work.
- Maintaining records of training and accidental exposures.

Both the environmental and safety offices may have applicable oversight for these responsibilities. As a commander, you should ensure adequate coordination between these two offices to meet safety, health, and environmental training requirements fully and to avoid redundancies.

PUBLIC RELATIONS

Public involvement, as intended by CERCLA, NEPA, and other environmental laws is a planned effort to involve citizens in the decision-making process and to prevent or resolve citizen conflict through mutual two-way communication. In addition, public relations efforts represent the Marine Corps as a good neighbor, disseminating information to keep the surrounding community apprised of each installation's environmental issues, activities, and requirements.



WINNERS OF THE USMC CHESTY BRIGADE 1997 EARTH DAY POSTER CONTEST. (L to R: Steven White (Cherry Point, NC); Amanda Lee Hershey (Tustin, CA); and Nathan Vance (Napa, CA).

The Public Perspective

Typically, citizens become involved in environmental issues because they feel that decisions are being made behind closed doors and that their legal rights to participate in the decision-making process have been infringed upon. Such adverse public sentiments can result in, at a minimum, significant project delays. When citizens are involved, or at least offered a part in the environmental decision-making process, the escalation of legitimate concerns into irrational project opposition can often be avoided. A proactive public involvement program prevents delays and assists in achieving project goals.

Contact with Elected Officials

Many citizens turn to their elected officials if they have a complaint or concern about the impact of Marine Corps activities on the community. Typically, when citizens reach out to public officials, they are in search of more information and communication. Accordingly, the best methods for addressing this public relations aspect of environmental issues are as follows:

- Plan and implement a progressive public involvement program that provides citizens with the information they may otherwise seek from elected representatives, who would then seek it from you.
- Provide methods for keeping elected officials informed of the overall environmental program, particularly of proposed actions or operations that may have environmental consequences. Face-to-face communication with elected officials increases credibility and cements working relationships.
- Make public officials and the general public part of the solution. Many environmental challenges require the volunteer participation of Marine Corps personnel and the public. A strong public outreach program can generate thousands of hours of volunteer assistance, increase support for existing projects, and have a positive impact on public opinion.



Public Involvement

The importance of public involvement as an integral part of the environmental program cannot be overemphasized. Negative news coverage, citizen-generated congressional inquiries, and adverse public reaction can all be avoided or minimized with forthright public involvement initiatives. More importantly, the Marine Corps seeks to involve the public in its environmental program because:



- It is the right thing to do. We are financed and, therefore, owned by the public. As a result, the public has a right to know and take part in the environmental decision-making process. We are stewards and trustees of public assets. The public has and deserves a vested interest in those assets. Public involvement is mandated by law, and these laws reflect the will of the people to (1) take better care of their environment and (2) contribute to decisions that affect the quality of life for the soldiers and civilians in the larger community.
- It is the smart thing to do. The community has a wealth of knowledge and experience that the commander can use in order to make a more informed decision. It is a "win-win" situation if the commander can tap the resources of the community and include community members in the process.
- It is the fiscally responsible thing to do. If a commander is spending money and resources to plan and implement a project, it is clearly in his best interest to ensure that the project reaches successful completion. What better way to ensure this comple-

tion than to “have buy-in by your toughest critics” in the beginning of the planning process? While it may seem quicker to make a decision without public dialogue, a project may be completed faster if the plans are not stalled by the public. Citizen reaction has stopped many projects, either through political pressure or the court system. Early buy-in can save money and time.

- It encourages community involvement in other areas. If a commander invites the community into the decision-making process, the community feels more a part of the installation. As a result, they are far more likely to attend other military-sponsored events.
- It is an education process for the public. By involving the public in the process, we can teach them more about the military and its mission. A well-informed public will be more likely to understand the military's requirements and, therefore, more likely to support the military's needs. The success of many Marine Corps environmental programs and projects depends on volunteers. The knowledgeable and willing participation of everyone involved is critical.
- The community becomes our ally. By having members of the community involved in the environmental decision-making process, you then have a voice for your messages in the community. The involved public members can help communicate the commander's intent to the community while lending credibility to the message. As a result, the commander can further alleviate public concern and facilitate mission accomplishment.
- Public involvement is a “combat multiplier.” If the public views the military in a favorable light, it is easier to recruit and retain more and better service members. Also, since Congress follows public opinion, our elected officials will more likely direct funds toward troops and tanks if the public supports military efforts. This benefit is long term.

RESOURCES AND REPORTING

THE FUNDING PROCESS

As an Installation Commander, you should conduct the necessary analysis to identify all anticipated costs for compliance within your local installation budget. Unit Commanders should follow established procedures to ensure that adequate funding is available to meet command environmental requirements that are not funded by host installations.



Types of Environmental Funds

Each commander should plan, program, and budget for environmental costs. The funding of environmental compliance occurs through two Operation and Maintenance, Marine Corps (O&MMC) funds: (1) installation operating funds and (2) the CMC(LF) Centrally-Managed Environmental Program (CMEP). For both installation operating funds and CMEP, installations identify requirements and make requests through the Programming, Planning, and Budgeting System (PPBS) cycle and CompTRAK. Installations must execute these funds using the Standard Accounting and Budgeting Reporting System (SABRS) environmental accounting codes. CMC(LF) tracks and reports these requirements up the chain of command to the DON, DOD, and Congress. Both installation operating and CMEP O&MMC funds are appropriated for 1 year.

- **Installation Operating Funds.** These funds are designated for those activities that are considered to be a cost of doing business and that are carried out within the CG/CO's yearly operating budget. Installations must include these costs in the activity's operating budget and in CompTRAK. Such costs include, but are not limited to,

salaries, permits, fees, hazardous and solid waste disposal, sampling, monitoring, analyses, training, travel, maintenance, supplies, and materials. Installation operating funds also support locally-approved repair (M1) or construction (R1) projects that fall within an installation's funding threshold.

- **CMEP.** Headquarters, Marine Corps (HQMC) controls and manages CMEP, which supports Marine Corps-wide environmental initiatives, such as the ECE program, CETEP, and the fielding of standard DOD environmental databases. CMEP also funds two programs at the installation level—Environmental Management and Environmental Projects:

The Environmental Management Program. This program supplements the installation's operational budgeted (OPBUD) funds intended for nonrecurring requirements that develop or emerge too late to be considered in a PPBS cycle.

The Environmental Projects Program. This program provides funding for CMC(LF)-approved repair (M2) or construction (R2) projects that exceed an installation's funding threshold.

- **Additional Funding Sources.** These sources include Operation and Maintenance, Marine Corps Reserve (O&MMCR); reimbursable Agricultural Outlease, Forestry, and Fish and Wildlife Access Fees; Qualified Recycling Program (QRP) Revenues; and the Defense Logistics Agency, Defense Fuel Supply Center (DLA, DFSC) funds. The account that funds Installation Restoration (IR) program activities is called the Environmental Restoration, Navy (ER,N) account. Another funding source is the Maintenance of Real Property (MRP) facilities account. For repair or construction projects that exceed M2/R2 funding authority levels, Military Construction (MILCON) funds (which require congressional approval) are used.

CompTRAK

Congress and the Secretary of Defense specify that all environmental requirements and costs must be tracked. Currently, the Marine Corps uses CompTRAK to meet this specification. All Marine Corps environmental requirements must be entered into CompTRAK by the tenth of each month and maintained with the most current information available. The primary functions of CompTRAK are estimating, prioritizing, tracking, and reporting for compliance projects; planning annual budgets; and producing roll-ups and reports. Some of the reports that installations must submit using CompTRAK are as follows:

- Marine Corps POM Biennial Report and Marine Corps POM Preparation Instruction (PPI) Reports.
- DON Environmental Quality Report (NAVCOMPT-EQR).
- Defense Environmental Quality Report (EQR) to Congress.
- OPS Report.
- Data roll-ups.



5 MEDIA AREAS

INTRODUCTION

THIS CHAPTER CONTAINS SUMMARIES OF THE MAJOR environmental laws, regulations, and requirements that may apply to your command, and checklists to help you determine if your installation is meeting applicable requirements in each area.



■ AIR QUALITY

WHAT IS IT?

Air quality has two components: preventing new sources of pollution and reducing or eliminating pollutant emissions from existing sources.

CURRENT REQUIREMENTS

■ **Clean Air Act (CAA) of 1963 as Amended.** The CAA was established “to protect and enhance the quality of the Nation’s air resources so as to promote public health and welfare and the productive capacity of its population.” The CAA requires the EPA to set National Ambient Air Quality Standards (NAAQS), which define (1) primary standards for air regulations for six pollutants (carbon monoxide, lead, ozone, oxides of nitrogen, sulfur dioxide, and particulates) and (2) secondary standards to retain environmental qualities not related to the protection of human health. The EPA has also set New Source Performance Standards (NSPS) for new and significantly modified sources, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for any air pollutant listed pursuant to Section 112(b) of the CAA, and standards for mobile sources.

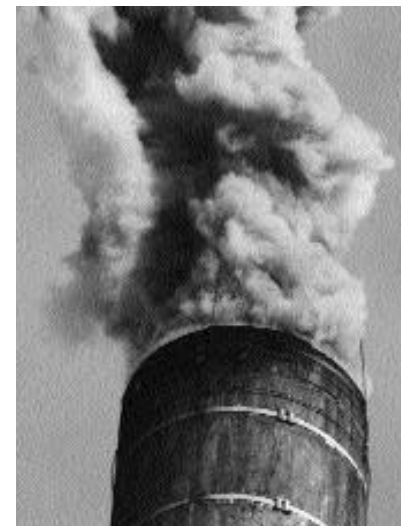
Nonattainment Area. An area that does not meet the NAAQS for a particular pollutant is said to be a “nonattainment area” for that pollutant. Regulatory standards for the six primary pollutants depend on the area’s degree of nonattainment, including marginal, moderate, serious, severe, or extreme nonattainment for a pollutant.

Existing sources emitting greater than SIP/FIP-established thresholds must install reasonably available control technology (RACT). New sources or existing sources with major modifications must install the lowest achievable emission rate (LAER) technology.

Prevention of Significant Deterioration (PSD). The PSD is a regulatory program under the CAA that applies in areas that are attaining NAAQS (i.e., attainment areas). The PSD program prevents air quality in

relatively clean areas from becoming significantly dirtier, while providing for economic growth.

The CAA mandates that new stationary sources, or major modifications to existing major stationary sources located in attainment areas, must obtain a PSD permit before beginning any new construction that would generate emissions that exceed the PSD threshold for the six primary pollutants. PSD permits require the installation of the best available control technology (BACT) and may require air emissions modeling.



Emission Reduction Credits (ERCs). The CAA Amendments of 1990 established a trading system for ERCs. Under this system, ERCs are created when pollution-emitting equipment is removed from service or when emissions are reduced from in-service equipment that is still in use. Each ERC constitutes permission to emit a stated amount of an air pollutant. Facilities may sell or lease unused credits to other emission sources within the same air quality district. In nonattainment areas, a source must offset emission increases by obtaining ERCs.

Stratospheric Ozone. The CAA Amendments of 1990 also require a halt in the production of substances that deplete the ozone layer (ozone depleting substances (ODSs)) by the year 2000. Chlorofluorocarbons (CFCs) and halons are the two largest categories of ODSs. CFCs are mainly used as refrigerants or solvents by the Marine Corps. Their application as aerosol propellants was banned in the United States in 1978. Halons have been used in the United States since the early 1970s as fire-

fighting agents, both in military and civilian applications. CFCs and halons are highly stable compounds that remain intact when they are released into the air. However, they break apart when they reach the stratosphere, releasing chlorine or bromine, chemicals which destroy the ozone layer, the earth's protection against ultraviolet radiation.

Montreal Protocol. Concerns about this environmental hazard resulted in the Montreal Protocol, an international agreement to protect the ozone layer, which was ratified by the United States Senate and became effective in 1982. The Montreal Protocol has progressively tightened restrictions on the annual consumption (i.e., production plus imports) of ODSs. The 1990 CAA Amendments added carbon tetrachloride and methyl chloroform (1,1,1, trichloroethane) to the list of ODSs and accelerated the phase-out schedule for most CFCs and halons to the year 2000.

■ **The Alternative Motor Fuels Act of 1988 and the Energy Policy Act (EPACT) of 1992.** These Acts establish stipulations for reducing air pollutants by requiring Federal facilities to acquire increasing numbers of alternatively fueled vehicles (AFVs).

■ **State Implementation Plans (SIPs).** States use SIPs to meet air quality standards. These plans specify emission limits and compliance schedules for pollution sources. SIPs are tailored to the needs of the different air pollution control districts. If a state does not develop a satisfactory SIP, the EPA may establish a Federal Implementation Plan (FIP). Federal agencies must comply with applicable SIPs or FIPs. States issue permits to construct and operate major stationary sources, develop regulations for emissions of air toxics as defined in CAA Section 112(b), and establish vehicle inspection and maintenance (I&M) programs that include Federally-owned vehicles.

■ **DOD Instruction (DODI) 4715.4, Pollution Prevention, June 18, 1996.** This DODI references EO 12843, which requires Federal facilities to eliminate the reliance on ODSs or to find suitable replacements.

REFERENCES

1. MCO P5090.2, Chapter 6, Air Quality Management.
2. CAA Regulations, 40 CFR Parts 50 through 96.
3. DODI 4715.4, Pollution Prevention, June 18, 1996.
4. CFC Stratospheric Ozone Information Hotline (800) 296-1996.

■ ASBESTOS

WHAT IS IT?

Asbestos is the name for a group of natural minerals that separate into strong, very fine fibers that are heat-resistant and extremely durable. In the past, asbestos was used extensively for thermal, acoustical, and decorative purposes, including boiler and pipe insulation, floor and ceiling tiles, appliances, and brake linings. Asbestos is friable if it degrades into microscopic fibers when it is disturbed or crumbled. Friable asbestos represents a health hazard when inhaled because fibers become lodged in the lungs, causing asbestosis, a chronic disease of the lungs that makes breathing progressively more difficult, or causing mesothelioma, a cancer of the chest and abdominal membranes. Buildings likely to contain friable asbestos are those constructed or remodeled between 1945 and 1978.



CURRENT REQUIREMENTS

■ **The Asbestos Hazard Emergency Response Act (AHERA) of 1986.** This Act requires school systems to inspect their buildings for asbestos, identify areas where asbestos poses hazards to humans, and abate those hazards. The 1990 amendments to AHERA require abatement workers and others working in commercial and public buildings to receive

asbestos training. Many state and local governments have enacted asbestos standards that are more stringent than the Federal standards.

■ Worker Exposure, Consumer Products, and Asbestos Waste.

Several Federal agencies are charged with regulating asbestos products and wastes. OSHA sets limits for asbestos exposure on the job. The Consumer Product Safety Commission (CPSC) regulates asbestos in consumer products. The CPSC has banned the use of asbestos in drywall patching compounds, ceramic logs, and clothing. The EPA regulates the management and disposal of asbestos-containing wastes. Under NESHAP regulations, the EPA requires prework notices and specific work practices to be used during demolition and renovation operations involving asbestos materials.

REFERENCES

1. MCO 5100.8, *Marine Corps Ground Occupational Safety and Health Program*.
2. 40 CFR Parts 61 and 763, EPA Asbestos Regulations.
3. 29 CFR Parts 1910.1001, 1915.1001, and 1926.1101, OSHA Asbestos Regulations.
4. *Guidance for Controlling Asbestos Containing Materials in Buildings* (EPA 560/5-85-024).
5. *Guidance Manual, Asbestos Operations and Maintenance Work Practices*, National Institute of Building Science, September 1992.
6. *Managing Asbestos in Place: A Building Owner's Guide to Operations and Maintenance Programs for Asbestos Containing Materials* (EPA 20T-2003), July 1990.
7. EPA Asbestos and Small Business Ombudsman (800) 368-5888.
8. TSCA Hotline (202) 554-1404.

■ DRINKING WATER

WHAT IS IT?

Approximately half of the United States drinking water supply is derived from rivers, streams, and other forms of surface water. The other half comes from reserves of groundwater known as aquifers. The quality of water from ground and surface supplies is determined

by geography, local soil properties, and the effects of human activity. Natural contaminants include bacteria, suspended matter, sulfates, chlorides, nitrates, fluoride, and radionuclides. Properly managed drinking water treatment systems can manage or remove these natural contaminants.

Over 60,000 industrial and agricultural chemicals, ranging from solvents to pesticides, can contaminate drinking water. Some disinfectants, such as chlorine, can react with natural and manmade chemicals in water to form undesirable by-products known as trihalomethanes. Drinking water can also become contaminated in distribution systems by corroded pipes or lead solder.



CURRENT REQUIREMENTS

■ **The Safe Drinking Water Act (SDWA) of 1974.** This Act requires the EPA to identify and set concentration levels for contaminants that may have an adverse effect on human health. The EPA established these concentration levels (i.e., maximum concentration limits (MCLs)) in the National Primary Drinking Water Regulations (NPDWR) and the National Secondary Drinking Water Regulations (NSDWR). The 1986 SDWA amendments imposed restrictions on the use of lead in drinking water distribution systems. Pursuant to the SDWA, Federal and state regulations have established requirements as outlined below.

MCLs. MCLs establish the maximum permissible level of contaminants delivered to users of a public water system. Primary MCLs are enforceable standards that apply to contaminants that pose a threat to

human health and the environment. Primary MCLs have been established for turbidity, microbiological organisms, volatile organic chemicals, inorganic metals and salts, and organic contaminants such as pesticides. The EPA has also developed secondary MCLs to control contaminants that affect the aesthetic quality of water, such as taste, color, and odor. Secondary MCLs have been established for pH, manganese, chloride, total dissolved solids, and iron. Secondary MCLs are not Federally enforceable, but are intended as guidelines for regulatory agencies. However, California currently enforces secondary MCLs, and other states may follow.

Underground Injection Control (UIC) Program. Pursuant to the SDWA, the UIC program prohibits the underground injection of fluids, except as authorized by permit or rule. Injection wells include beneficial return wells, fluid return wells, cesspools, septic systems, industrial waste discharge wells, and aquifer recharge wells. Many Marine Corps installations operate septic systems, which are frequently overlooked as a form of underground injection, that require permitting and maintenance in accordance with state and local requirements.

Wellhead Protection (WHP). Under the SDWA, states must develop WHP areas. Federal agencies having jurisdiction over any potential source of contamination identified by a state WHP program must comply with all requirements of the state or local program. States may also require installations that operate groundwater-supplied drinking water systems to develop and implement their own WHP program. Installations should determine whether their states have a WHP program.

■ **The SDWA Amendments of 1996.** The 1996 SDWA Amendments include the following new requirements:

The EPA must list currently unregulated contaminants thought to have adverse health effects on infants, children, pregnant women, the elderly, individuals with serious illnesses, or other sensitive subpopulations. MCLs for such listings must be based on a cost/benefit risk analysis.

The EPA must promulgate standards, based on further study and risk analyses, for arsenic, sulfate, and radon; may promulgate rules for disinfectants and disinfectant by-products; and may screen for estrogenic substances in drinking water. The EPA published minimum standards for operator certification in February 1998.

Public water supply systems must provide public notice of failure to comply with MCLs, failure to perform required monitoring, and the existence of any variance or exemption granted for an inability to meet MCL requirements. Public water suppliers must maintain applicable records and must issue annual consumer confidence reports on the level of contaminants in drinking water.

Federal facilities must comply with all Federal, state, and local requirements pertaining to wellhead protection areas, underground injection, and the operation of a public water supply system. The EPA may impose administrative penalties of up to \$27,500 per violation per day.

■ **The Energy Policy Act (EPACT) of 1992.** EPACT establishes water conservation requirements for Federal agencies. By January 1, 2005, each agency must install water conservation measures in its Government-owned buildings if the measures have a payback period of less than 10 years.

■ **The Lead Contamination Control Act of 1988.** This Act requires states to develop lead monitoring programs for school, day care, hospital, and domestic drinking water systems.

■ **Cross-Connections.** Most states require public water supply systems to establish, operate, and maintain a cross-connection control program. Marine Corps installations must identify cross-connection hazards, correct identified deficiencies, provide annual testing and the maintenance of backflow prevention devices, provide general awareness training, and ensure that backflow prevention devices are included in all new construction or rehabilitation projects.

REFERENCES

1. MCO P5090.2, Chapter 16, Drinking Water Systems and Water Conversation.
2. 40 CFR Parts 141 through 149, National Primary and Secondary Drinking Water Regulations.
3. *Water on Tap: A Consumer's Guide to the Nation's Drinking Water* (EPA 815-K-97-00), July 1997.
4. Protecting Local Ground-Water Supplies through Wellhead Protection (EPA 570/9-91-007), May 1991.
5. NAVMED P5010, *Manual of Naval Preventive Medicine*.
6. BUMED Instruction 6240.10, *Standards for Potable Water*, February 3, 1993.
7. EPA Safe Drinking Water Hotline (800) 426-4791.

■ EMERGENCY PLANNING AND RESPONSE

WHAT IS IT?

Provisions within the major statutes recognize the need for emergency planning to address the uncontrolled release of pollutants to the water, air, and land. Accordingly, these statutes require facilities with the potential for such releases to develop release prevention procedures, to provide written emergency procedures, and to implement the response procedures in the event of a release.

CURRENT REQUIREMENTS

■ **The Federal Water Pollution Control Act (FWPCA) of 1972, the Clean Water Act (CWA) of 1977, and the Water Quality Act of 1987.** These Acts and subsequent amendments protect the integrity of the Nation's waters by controlling the discharges of pollutants, including oil and hazardous substances (HSs), into those waters. A discharge, as defined by the CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil. Section 311 of the CWA requires the prevention of and response to oil and HS spills into or upon the navigable waters of the contiguous zone in quantities that are determined to be harmful to public health or the environment. Spill

Prevention Control and Countermeasure (SPCC) Plans are mandated by the CWA. The Oil Pollution Act (OPA), which amended the CWA in 1990, requires response capabilities and contingency planning for "worst case" discharges into the aquatic environment. Facility Response Plans (FRPs) are mandated by OPA.



■ **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.** CERCLA, as amended by the Superfund Amendment and Reauthorization Act (SARA), requires a National Oil and Hazardous Substance Pollution Contingency Plan (NCP) and specifies subjects that the NCP must address. The NCP establishes the national framework for planning and response to oil discharges and HS releases. A release, as defined by CERCLA, refers to any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of an HS into the environment. The EPA has published a list of HSs and designated reportable quantities for each. If more than the reportable quantity of an HS is released to the environment, installations are required to clean up the spill and report it to the appropriate regulatory agency. If less than the reportable quantity is released, installations are still required to clean up the spill, but a report is not required.

For oil and HS spill contingency planning and response, the NCP assigns responsibilities to various Federal agencies, including the DOD, and outlines state and local government and public and private interest group participation. The NCP also specifies notification procedures for certain oil discharges and HS releases. Oil and HSSpill Contingency Plans (OHS SCPs) are mandated by the CWA and CERCLA.

■ **Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, also known as Superfund Amendments and Reauthorization Act (SARA) of 1986.** This Act requires installations to provide comprehensive information to local governments and the public about possible chemical hazards affecting local communities. Installations are responsible for gathering information on chemicals used, stored, or released into the environment; for providing the information to government agencies and local communities; and for helping to establish procedures in response to chemical emergencies.

Under EPCRA Section 301, local communities and states have the responsibility for understanding, managing, and reducing risks posed by chemicals at the local level and for dealing with emergencies within their communities. States and civilian communities must prepare for emergency releases of HSs by appointing a State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC). Under EPCRA Section 302, a facility that has an EHS in a quantity equal to or greater than the threshold planning quantity (TPQ) established in 40 CFR 355, Appendix A, must notify the SERC and LEPC that the facility is responsible for EPCRA planning for that substance.

Under Section 303, the facility must inform the LEPC of a facility response coordinator who will participate in the local emergency planning process. The facility must advise the LEPC of any changes to the facility that would affect emergency planning and, upon request, provide the LEPC with any additional information necessary for developing the local plan. Under Section 304, the facility must provide immediate notice of the release of any EHS or CERCLAHS in excess of its TPQ to the LEPC and/or the SERC.

Under EPCRA Section 311, a facility that has HSs present in an amount equal to or greater than 10,000 pounds and that requires a Material Safety Data Sheet (MSDS) under OSHA must submit copies of the MSDSs or a consolidated list to the SERC, LEPC, and the fire department having jurisdiction over the facility. If the HS is also a listed EHS, then the reportable amount is 500 pounds, 5 gallons, or the TPQ, whichever is less. Under Section 312, a

facility meeting the reporting requirements of Section 311 must submit an annual Emergency and Hazardous Chemical Inventory for these substances.

Under Section 313, a facility, with 10 or more full-time employees, that manufactures or processes any listed toxic chemical in excess of 25,000 pounds or that otherwise uses any listed toxic chemical in a quantity over 10,000 pounds in a calendar year must submit annually individual release data (Form R) detailing the amounts of HM released (through accident or through normal operations) and the amounts transported as waste to another location. This report is also known as a Toxic Release Inventory (TRI).



■ **Other laws.** Subtitle C of the Resource Conservation and Recovery Act (RCRA) requires owners and operators of HW facilities to develop comprehensive HW management plans (HWFacility Contingency Plan) that address spill prevention and cleanup for these facilities. The 1990 CAA Amendments require procedures, including air emissions risk management plans, to prevent and minimize the consequences of accidental releases of extremely hazardous substances (EHSs) known to cause death, injury, or serious adverse effects to human health or the environment.

■ **Training.** OSHA requires various levels of training for personnel involved in HS cleanup and emergency response operations. Most state regulatory programs contain provisions for oil and HS pollution contingency planning and for notifying state and local authorities of oil and HS spills.

■ **Integrated Contingency Plan (ICP).** The statutes introduced above contain overlapping emergency response plan requirements. On June 5, 1996, the National Response Team published its ICP Guidance, which enables facilities to meet multiple plan requirements in a single plan. This guidance can help you develop a single plan for your command.

REFERENCES

1. MCO P5090.2, Chapter 7, Emergency Planning and Response.
2. 40 CFR Parts 110 and 112, EPA Discharge of Oil and Oil Pollution Prevention.
3. 40 CFR Part 117, EPA Reportable Quantities of Hazardous Substances.
4. 33 CFR Parts 153 through 158, United States Coast Guard Regulations on Oil Spills.
5. 40 CFR Parts 300, 302, 355, 370, and 372; National Oil and Hazard Substance Contingency Plan, Reportable Quantities, Emergency Planning and EPCRA.
6. 29 CFR Section 1910.120, Hazardous Waste Operations and Emergency Response.
7. EO 12777 (October 18, 1991). Implementation of Section 311 of the Federal Water Pollution Control Act of October 18, 1972, as Amended, and the Oil Pollution Act of 1990.
8. National Response Team, Integrated Contingency Plan Guidance, June 5, 1996.
9. EPA RCRA, Superfund, and EPCRA Hotline (800) 424-9346.

■ HAZARDOUS WASTES, SUBSTANCES, AND MATERIALS

WHAT IS IT?

The terms hazardous waste (HW), hazardous substance (HS), and hazardous material (HM), have specific regulatory definitions.

- *HWs pose a significant threat to human health or safety if improperly managed and are defined in 40 CFR 261.3.*
- *HSs, which pose a threat to human health or the environment if released in significant amounts, are defined by Section 101 (14) of CERCLA and are listed in 40 CFR 302.*
- *HMs pose an unreasonable risk to health, safety, and property when improperly transported in commerce and are designated under 49 CFR Subpart B, Table of Hazardous Materials and Special Provisions.*

CURRENT REQUIREMENTS

- **Resource Conservation and Recovery Act (RCRA) of 1976, as Amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984.** RCRA defines HWs as wastes that exceed established levels of reactivity, ignitabil-

ity, corrosivity, or toxicity or that are listed as a HW in 40 CFR Part 261.

RCRA Subtitle C. Subtitle C established a regulatory program for HW management. The sections of Subtitle C include

Identification and Listing of HW (3001); Regulation of Generators of HW (3002); Regulation of Transporters of HW (3003); Regulation of Facilities that Treat, Store, or Dispose of HW (3004); and Permit Requirements for these facilities. Common HWs generated at Marine Corps facilities include spent solvents, paints, and paint sludges. RCRA regulations address routine management of these wastes, including detailed requirements for facilities that generate, transport, treat, store, or dispose of HW. RCRA Subtitle C requires HW generators, transporters, and treatment, storage, and disposal facilities to obtain EPA identification numbers.



Large quantity generators are defined as facilities that generate 1,000 kilograms or more of HW per month. Facilities generating more than 100 kilograms (220 pounds), but less than 1,000 kilograms of HW per month, are considered small quantity generators. Wastes considered acutely hazardous are regulated at 1 kilogram per month. All generators, unless they are a conditionally exempt small quantity generator (generating less than 100 kilograms per month), must treat, store, or dispose of their HW at RCRA-permitted facilities. Many states have established different thresholds for regulating generators of HW.

Treatment, storage, or disposal facilities (TSDFs) are required to apply for operating permits. RCRA Federal- or state-issued permits usually require:

- Emergency plans.
- Proper identification of wastes.
- A “cradle-to-grave” record-keeping system that requires the track-

ing of HW shipments from the generation point through treatment or disposal. HW shipped for off-site treatment or disposal must be properly labeled and must be accompanied by shipping papers (manifests). HW shipments are subject to DOT HM transportation regulations.

- Training of personnel on operational and safety requirements in accordance with OSHA regulations.
- Regularly scheduled inspections and reports of both routine and continuing operations.
- A plan for ceasing activities and closing operations.
- Corrective action for past releases that pose a threat to human health and the environment.
- General and individual standards for individual units, such as tanks, surface impoundments, treatment or disposal facilities, and miscellaneous units, including those that conduct the open detonation of propellants and explosives.

RCRA C (Waste Minimization). RCRA requires that facilities generating more than 100 kilograms of HW or 1 kilogram of acutely HW per month must certify on each HW manifest that a program is in place to minimize HW generation. Facilities must submit biennial reports to the EPA on the progress of their HW minimization program. The HW minimization program should be an integral part of the pollution prevention program (see discussion under Pollution Prevention in this chapter).

HSWA (Underground Storage Tanks (USTs)). The HSWA regulates USTs that contain petroleum products or HSs and includes requirements to detect leaks, measures to prevent leaks, and procedures to clean up contamination caused by leaking tanks.

■ **The Federal Facility Compliance Act (FFCA) of 1992.** This Act requires that Federal facilities comply with all provisions of Federal, state, interstate, and local HW laws and regulations. The FFCA also requires the

EPA, in consultation with DOD, to issue regulations on the application of RCRA to military conventional and chemical munitions.

■ **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and the Clean Water Act (CWA) of 1977.** These statutes define HSs as chemicals that are harmful to aquatic life or the environment and that are regulated if spilled or otherwise released. The cleanup of past HW disposal sites is regulated principally under CERCLA.

■ **United States Department of Transportation (DOT) Regulations (Title 49 CFR Parts 106 through 178).** These regulations define HMs as chemicals that are determined by the Secretary of Transportation to pose an unreasonable risk to safety, health, and property during transportation. The DOT regulations include requirements for shipping papers, package marking, labeling, and transport vehicle placarding.

REFERENCES

1. MCO P5090.2, Chapter 9, Hazardous Waste Management.
2. 40 CFR Parts 260 through 279, HW Regulations.
3. 49 CFR Parts 106 through 178, DOT HM Regulations.
4. 40 CFR Parts 300 through 302, CERCLAHS Regulations.
5. 29 CFR Parts 1910.120 and 1910.1200, OSHA HM Training.
6. DODD 6055.9, DOD Explosives Safety Board (DDESB) and DOD Component Explosives Safety Responsibilities, July 29, 1996.
7. DODI 6050.5, DOD Hazard Communication Program, May 6, 1996.
8. EPA HW Ombudsman (800) 262-7937.

■ HISTORIC AND ARCHAEOLOGICAL RESOURCE PROTECTION

WHAT IS IT?

Many Marine Corps facilities are rich in historic and archaeological resources such as prehistoric settlement sites, historic archaeological

sites, engineering landmarks, significant architecture, and cultural sites. The conservation of these resources requires identifying and evaluating these areas and developing a process to manage these resources.

CURRENT REQUIREMENTS

■ **The National Historic Preservation Act (NHPA) of 1966, as Amended through 1992.** This Act requires preventing the loss of irreplaceable historic properties. The Act created the Advisory Council on Historical Preservation (ACHP), which is authorized to review and comment on all Federal undertakings that may have an effect upon properties either listed in the National Register of Historic Places (NRHP) or those that are eligible for such listing.

Under the NHPA, Federal land managers must develop a Historic and Archaeological Resources Protection (HARP) program and implement an Integrated Cultural Resources Management Plan (ICRMP) to locate, identify, and evaluate all historic properties on their installations.

In addition, Federal land managers must submit a description of all undertakings that may affect historic property to the appropriate State Historic Preservation Officer (SHPO) for comment. The ACHP must review undertakings that may affect a National Historic Landmark. Following the review, the Federal agency may enter into a Memorandum of Agreement (MOA) or may write a letter to the ACHP, notifying it that comments have been taken into consideration. Upon completion of the review, the Federal land manager must manage the historic property as dictated by ACHP's interpretation of the public interest.

■ **The Historic and Archaeological Data Preservation Act of 1974.** This Act states that Federal funds may be used to recover significant historical or archaeological data that are threatened by a Federal construction project or a Federally-licensed project.

■ **The American Indian Religious Freedom Act (AIRFA) of 1978.** AIRFA requires Federal agencies to consult with native traditional religious leaders and to consider, but not necessarily defer to, Native American religious values. Agencies should permit access to religious sites, when possible.



■ **The Archaeological Resources Protection Act (ARPA) of 1979.** ARPA requires Federal land managers to issue permits for artifact excavation or removal from lands under their jurisdiction. The Act requires that relevant Native American tribes be notified of permit issuance if significant religious or cultural sites will be affected.

■ **The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.** NAGPRA states that the discovery of suspected Native American human remains during a Federal undertaking requires immediate cessation of activity for a minimum of 30 days and consultation with Native American groups. The excavation of sites that may contain, or are likely to contain, such human remains, funerary objects, sacred objects, or items of cultural patrimony requires notification and consultation with appropriate Native American groups.

REFERENCES

1. MCO P5090.2, Chapter 8, Historic and Archaeological Resources Protection.
2. 36 CFR Parts 63 and 800, National Historic Preservation Act Regulations.
3. 36 CFR Part 60, National Register of Historic Places.
4. 36 CFR Part 79, Curation of Federally-Owned and Administered Archaeological Collections.
5. 36 CFR Part 296, Protection of Archaeological Resources.

■ INSTALLATION RESTORATION (IR) PROGRAM

WHAT IS IT?

DOD established the IR program in 1984 to identify, investigate, and clean up contamination on DOD properties. The DOD program parallels the Superfund program. The IR program differs from environmental compliance in that it focuses on past operations. The IR program may address the cleanup of past releases of any pollutant or contaminant that endangers public health, welfare, or the environment, including petroleum, oil, and lubricant (POL) products, as well as HSs; the cleanup of contamination from USTs; and corrective action for past contamination at RCRA-permitted sites.

The IR program is funded by a special appropriation called the Environmental Restoration, Navy (ER,N) account. The NAVFACENGCOM programs, manages, budgets, and executes this account for the Marine Corps and the Navy.

CURRENT REQUIREMENTS

■ **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and Superfund Amendments and Reauthorization Act (SARA) of 1986.** These statutes address the cleanup of improperly disposed of HSs. The National Oil and HS Pollution Contingency Plan, or National Contingency Plan (NCP), is the basic regulation that implements the statutory requirements of CERCLA and SARA. See key components of the IR program below.

■ **Resource Conservation and Recovery Act (RCRA) of 1976, as Amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984.** Installations seeking or renewing a permit for a TSDF are required by RCRA Section 3004(u) to take corrective action for past releases of HW constituents from any solid waste management unit (SWMU) at the installation. Permits issued by the EPA or by a state with RCRA authori-

ty will contain schedules of compliance for such correction (where such action cannot be completed before the permit is issued). ER,N funds can be used for corrective action for past releases of HW at TSDFs if the releases are the same as those covered by the IR program. Additional RCRA corrective action requirements include:



Per RCRA Section 3004(v), corrective action must be taken for releases of HW that have migrated beyond the installation's boundaries.

Per RCRA Section 3008(h), the EPA may issue an order requiring corrective action to address HW releases (constituents omitted), whether or not from a SWMU, at facilities authorized to operate under interim status.

■ **The Community Environmental Response Facilitation Act (CERFA) of 1992.** CERFA amended CERCLA, Section 120(h), by requiring the Federal Government, before termination of Federal activities on property owned by the Government, to ensure that no HS and no petroleum products or their derivatives were stored, released, or disposed of on that property. In the case of any real property owned by the Government on which any HS was stored for one year or more (known to have been released or disposed of), each deed entered into for the transfer of such property by the Government to any person or entity will contain the type and quantity of such HS and the time at which such storage, release, or disposal took place. For bases subject to realignment or closure, CERFA determination must be made and con-

currence from the appropriate state official must be obtained within 18 months of when the real property is selected for closure or realignment.

■ **Hazardous Waste Operations and Emergency Response (HAZWOPER).**

IR training requirements are specified in 29 CFR 1910.120(e). OSHA requires all employees who work on site and who are exposed to HSs, health hazards, or safety hazards to receive 40 hours of initial training and an annual refresher of 8 hours thereafter.

■ **Key Components of the IR Program:**

Preliminary Assessment/Site Inspection (PA/SI). The goal of the PA/SI is to identify potentially contaminated sites. The PA consists of a review of available historic information (records search) concerning installation activities and land use. The SI is an on-site visit consisting of limited sampling and an analysis designed to verify the preliminary findings of the PA. Results of the PA/SI will determine the need for further investigation and whether a site merits placement on the National Priorities List (NPL) by the EPA. CERCLA Section 120(c)(3) requires that a PA must be prepared for every facility on the EPA Federal Agency HW Compliance Docket; the Docket is a list of Federal facilities that have reported a release of an HS, applied for a RCRA permit, submitted notification of HW activities, or submitted IR program information to the EPA.

Remedial Investigation/Feasibility Study (RI/FS) and Record of Decision (ROD). Sites identified in the PA/SI as potential threats to human health or the environment receive a comprehensive investigation called an RI/FS. The RI/FS defines all contaminants and their migration pathways, assesses potential risks to public health and the environment, identifies alternative cleanup technologies, and selects the most feasible cleanup alternative. The Agency for Toxic Substances and Disease Registry (ATSDR) must perform a health assessment for each Federal facility listed or proposed for the NPL before the RI/FS is completed. Upon remedy selection, the facility

prepares a ROD to describe the selection process and the selected remedy. For NPL sites, the ROD is signed by the installation CG/CO and the EPA Regional Administrator.

Remedial Design/Remedial Action (RD/RA). Following the RI/FS, the site enters the RD/RA phase. RD activities include the development of detailed designs, plans, specifications, and bid documents for conducting the cleanup. Once a contract is awarded, the RA phase begins. RAs may include removing wastes from the site for off-base treatment or disposal, containing the waste on site, or treating the waste on site.

Removal Actions. Removal actions are responses to an immediate threat or relatively simple responses that do not require detailed planning. Removal actions may include fencing, providing alternate water supplies, and removing above-ground or buried drums.

Federal Facility Agreements (FFAs). The FFA, also known as pre-ROD Interagency Agreement (IAG), is a formal agreement between the DON and either the EPA and the state; the FFA establishes objectives, responsibilities, procedures, and schedules for the RI/FS phases at NPL installations. FFAs are intended to outline the working relationship and to improve communications between all parties by allowing the EPA and the state to review all work, ultimately making the selection of any remedial action less argumentative.

Interagency Agreements (IAGs). After completing the RI/FS, the FFA will be reviewed and transformed into an IAG. IAGs are required at NPL installations within 180 days after the EPA reviews the RI/FS. The IAG is a formal document between the DON and either the EPA and the state. The document establishes objectives, responsibilities, procedures, and schedules for remediation at NPL installations. There may also be non-NPL agreements with states for RCRA and UST corrective actions.

Administrative Records. The NCP requires the establishment for all NPL sites of an Administrative Record that should be maintained for 50 years.

Technical Review Committee and Restoration Advisory Board (TRC/RAB). SARA Section 211 requires, whenever possible, that a TRC be established to review and comment on the technical aspects of response actions and proposed actions. Members of the TRC include the Marine Corps, the cognizant NAVFACENGCOM EFD/EFA, EPA officials, state and local authorities, Federal and state natural resource trustees, and community representatives. TRCs should be converted to RABs, if sufficient interest exists, by including additional community representatives, establishing co-chairs (i.e., one community member and one Navy/Marine Corps member), and opening meetings to the public. RABs allow the public to comment on the IR program.

EPA'S NPL PROPOSAL AND LISTING

Based on PA/SI data, the EPA ranks sites using the Hazard Ranking System (HRS), which addresses such factors as the amount and toxicity of the contaminants, potential mobility, pathways for human exposure, and proximity of population centers. The EPA may propose and list an installation on the NPL if the HRS score is greater than 28.5. The following actions are required for NPL installations:

- Commence RI/FS within 6 months of NPLlisting, in consultation with the EPA and the state.
- Negotiate and sign an FFA early in the RI/FS phase.
- Allow the EPA to review the RI/FS.
- Establish an IAG with the EPA and the state within 180 days of the EPA RI/FS review (FFA serves as the framework).
- Provide public notice and public meetings on the proposed remedial action plan.

- Ensure that the ROD is signed by the base CG/CO and the EPA.
- Issue public notice of the selected remedial action plan.
- Begin "substantial continuous physical on-site remedial action" no later than 15 months after completion of RI/FS.
- Operate and maintain the site.
- Perform post-closure monitoring of the site.

NPL installations often require long-term monitoring. NAVFACENGCOM conducts long-term monitoring using ER,N funds for the first five years after the response action is completed. After this period, the installation funds the long-term monitoring.

During the remediation process, a decision for no further action may be made if it is deemed that the site poses little or no threat to human health or the environment. However, the decision must be based on a defensible and properly documented risk assessment.

REFERENCES

1. MCO P5090.2, Chapter 10, Installation Restoration Program.
2. 40 CFR Part 302, Designation, Reportable Quantities and Notification.
3. 40 CFR Part 300, National Oil and HS Pollution Contingency Plan.
4. *Navy/Marine Corps Installation Restoration Manual*.
5. Chief of Naval Operations (CNO) letter of February 9, 1994, establishment of RABs.
6. *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA: Interim Final* (EPA 540 G-89 004), October 1988.
7. 29 CFR Part 1910.120, HW Operations and Emergency Response.
8. DODI 4715.7, Environmental Restoration Program, April 22, 1996.

■ MEDICAL AND INFECTIOUS WASTE

WHAT IS IT?

The Naval Bureau of Medicine and Surgery (BUMED) divides medical waste into two categories: infectious waste and noninfectious waste. (Various states have different definitions of infectious or medical waste.) According to BUMED, infectious waste is a liquid or solid waste containing pathogens in sufficient numbers and with sufficient virulence to cause infectious disease in susceptible hosts exposed to the waste. Infectious wastes are pathological wastes, including human tissues; organs from surgery, delivery, or autopsy procedures; body parts; microbiological wastes; blood and blood products; sharps (e.g., hypodermic needles, syringes, scalpel blades); and contaminated animal carcasses.

Noninfectious waste includes absorbent materials, such as discarded products for personal hygiene that contain fully absorbed (not free flowing) blood or body fluids.

The management of infectious and medical waste requires special attention at Marine Corps installations because the generators are usually tenants, such as Naval hospitals and clinics. Commanders should ensure that all generators, including tenants, properly manage such wastes.

CURRENT REQUIREMENTS

■ **The Solid Waste Disposal Act (SWDA) of 1965 as Amended by the Resource Conservation and Recovery Act (RCRA) of 1976.** The SWDA provides the EPA with the authority to regulate infectious waste as hazardous waste. The EPA has issued guidelines for managing infectious waste.

■ **Occupational Safety and Health Administration (OSHA).** OSHA has published rules regulating occupational exposure to bloodborne pathogens. The regulations include requirements for the accumulation

and storage, packaging, labeling, and protective equipment use for infectious waste handlers.

■ **State Laws.** Many of the states have established infectious waste regulations, which usually address storage, transportation, permitting, licensing, and reporting. All DOD components must comply with the applicable state and local infectious waste regulations.

■ **Naval Bureau of Medicine and Surgery (BUMED).** Marine Corps facilities must also comply with BUMED instructions, which include tracking, treatment, disposal, training, and spill disinfection.

REFERENCES

1. BUMED Instruction 6280.1A, Management of Infectious Waste, January 21, 1994.
2. EPA Guide for Infectious Waste Management (EPA 530SW86014), June 1988.
3. 29 CFR Part 1910.1030, Occupational Exposure to Bloodborne Pathogens.



■ NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

WHAT IS IT?

NEPA requires all Federal agencies to give consideration to potential environmental effects in their planning and decision making for major proposed actions. The intent of NEPA is to ensure that the individual deciding to undertake a Federal action has identified all environmental impacts and has considered reasonable alternatives to the action. NEPA requires documentation of procedures and public involvement in the decision-making process. The consideration that will be given

to a project depends on the project's scope, public involvement and concern, and the extent and value of impacted resources.

CURRENT REQUIREMENTS

■ **National Environmental Policy Act (NEPA) of 1969.** NEPA is a planning statute that stresses an interdisciplinary approach to problem solving and requires consideration of environmental effects, natural resources, cultural resources, and the quality of the human and natural environment. (See steps below). Therefore, during the NEPA review, project proponents must consider the relationship of the project to all of the other laws and requirements discussed in this guide.

Clean Air Act(CAA) Conformity. The installation should determine whether its actions conform to the SIP or FIP before implementing the action. If the installation is in a nonattainment area, a conformity determination should be conducted at the same time NEPA analysis and documentation procedures are carried out for the planned action.

Council on Environmental Quality (CEQ). NEPA established the CEQ, which is responsible for issuing regulations that implement NEPA provisions.

■ **State laws.** Several states have enacted regulations, similar to those set forth in NEPA, which require environmental analysis of certain types of actions. Marine Corps actions that require permits from state or local agencies may also be subject to requirements for environmental analysis under state regulations. In most cases, an Environmental Assessment (EA), prepared under the NEPA process, may be used to satisfy the state requirements. If preparation of an Environmental Impact Statement (EIS) is required, coordinate with state agencies to ensure that the state requirements are satisfied.

■ **Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, EO 12898, March 14, 1994.** EO 12898 requires Federal agencies to ensure that major Federal actions

do not have disproportionate impacts on minority and low income populations. Marine Corps facilities must therefore address any environmental justice considerations during the NEPA review process.



■ **Environmental Effects of Major Actions Abroad, EO 12114, January 4, 1979.** EO 12114 estab-

lishes internal procedures for Federal agencies to consider the significant effects of their actions on the environment outside the United States. The objectives of this EO are to provide information to decision makers, to increase awareness and interest in environmental concerns, and, wherever possible, to encourage environmental cooperation with foreign countries.

■ **Mandatory Procedures for Major Acquisition Programs and Major Automated Information Systems Acquisition Programs, DODI 5000.2, March 15, 1996.** DODI 5000.2 sets forth a process that requires program managers to document the potential environmental effects of a planned acquisition program at each phase. Compliance with NEPA or EO 12114 is required.

STEPS IN THE NEPA REVIEW PROCESS

In the first phase of the NEPA process, the lead Federal agency proposing the action conducts an environmental review of the proposed action to determine whether significant environmental impacts are anticipated and whether changes can be made to the proposed action to eliminate these impacts.

An environmental review determines (1) whether a proposed action can be considered exempt from the environmental documentation process through a Categorical Exclusion (CatEx) or (2) whether an EA or EIS must be prepared.

An environmental review consists of the following steps:

- **CatEx.** A CatEx may be granted for actions which, under normal circumstances individually or cumulatively, do not have a significant effect on the environment and for which, therefore, neither an EA nor an EIS is required. MCO P5090.2 provides a list of actions that indicate when CatExs are appropriate.
- **EA.** An EA is required for proposed actions that have the potential for adverse environmental impacts. An EA is conducted to determine whether a more detailed study is necessary. It is a documented assessment of the potential environmental impacts and an evaluation of those impacts in terms of significance.
- **FONSI.** If the outcome of an EA indicates that no significant environmental impacts are anticipated, a FONSI is issued. A FONSI presents reasons why an action will not have an appreciable effect on the environment and for which an EIS will, therefore, not be prepared.
- **EIS.** If an EA indicates that significant environmental impacts are anticipated, or public controversy over the planned action is expected, a decision should be made to proceed with an EIS. An EIS must be filed with the EPA. Conditions that would prompt the preparation of an EIS might include large dredging projects; proposed major construction and filling in tidelands/wetlands; building major new facilities; major land acquisitions that will change the use of the property; new sanitary landfills; or use or disposal of biological or chemical munitions, pesticides, or herbicides other than in the manner for which they are authorized.

The EIS must contain a full, fair, yet concise discussion of all significant environmental impacts relating to a proposed action. Because the EIS discloses the environmental impacts, the public and regulatory agencies can be involved in the decision-making process by providing comments that may assist in developing

alternatives to the proposed action.

- **ROD.** The EIS process is completed with a ROD, which the CG/CO forwards to the Secretary of the Navy, who informs the public of the Marine Corps decision to implement the proposed action. The ROD is published in the *Federal Register*.

REFERENCES

1. MCO P5090.2, Chapter 12, The National Environmental Policy Act.
2. 40 CFR Parts 1500 through 1508, CEQ NEPA Regulations.
3. 32 CFR Part 188, Environmental Effects in the United States of DOD Actions.
4. EPA Environmental Justice Hotline (800) 962-6215.

■ NATURAL RESOURCES

WHAT ARE THEY?

Natural resources include watersheds, wetlands, natural landscapes, soils, forests, and associated fish, vegetation, and wildlife. The variety of landscapes (e.g., desert, deciduous forest, high mountains) owned by the Marine Corps allows Marines to train in the different environments that they may encounter under battlefield conditions. As a Federal agency, the Marine Corps acts responsibly in the public interest to restore, improve, preserve, and properly use natural resources. The focus of natural resources management must be long term to ensure that these resources are available to support the Marine Corps mission.

CURRENT REQUIREMENTS

- **Endangered Species Act (ESA) of 1973.** The ESA addresses threatened and endangered species. Endangered species are defined as those species that are in danger of extinction throughout all or a significant portion of their habitat. Threatened species are those which are likely to become endangered within the foreseeable future throughout all or a significant portion of their habitat.

The ESA provides a means to conserve the ecosystems upon which endangered and threatened species depend. Under the ESA, the National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USF&WS) are responsible for compiling lists of threatened and endangered species, for issuing biological opinions regarding Federal activities, and for enforcing statutory and regulatory provisions.

Federal agencies must consult with the USF&WS and inventory and monitor endangered or threatened species to ensure that any actions authorized, funded, or carried out by such agencies are not likely to jeopardize the continued existence of endangered or threatened species or to destroy or adversely modify the critical habitat of such species. Federal agencies must prepare a biological assessment if listed species or critical habitats may be present in areas affected by any major construction activities.

■ **Sikes Act (Conservation Programs on Military Installations) of 1960.** The Sikes Act, as amended, requires military facilities to provide public access to natural resources, as appropriate and consistent with the military mission. Marine Corps facilities must consult with the National Park Service regarding the management of outdoor recreation. The Sikes Act also requires each installation to execute Cooperative Fish and Wildlife Plans with the USF&WS and with state fish and wildlife agencies and allows fees to be charged for hunting and fishing permits. Collected fees must be used for fish and wildlife conservation on the facility.

■ **The Coastal Zone Management Act (CZMA) of 1972, as Amended in 1980.** The term coastal zone includes ocean waters and adjacent land that exert an influence on the uses of the sea and its ecology. The CZMA requires Federally-funded coastal zone actions to be preceded by a determination of consistency with a state's coastal zone management program.

■ **Military Construction Authorization Act—Leases; Non-Excess Property (Passed Annually).** Marine Corps lands, when suitable and available, may be leased for agricultural purposes, such as crop production or grazing.

Public Law 97-321, 10 USC 2667 (d), provides for the outleasing of public lands and the use of the funds to finance multiple use land management programs.

■ **Military Construction Authorization Act—Sale of Certain Interest in Lands; Logs (Passed Annually).**

Public Law 97-321, 10 USC 2665, provides for the production and sale of forest products on military lands. Marine Corps installations containing

forested lands or lands with the potential to grow and produce forest products must ensure the optimum sustainable yield of forest products and the improvement of forest resources, consistent with the military mission and local ecosystem condition. Contracts for the sale of timber and forest products must require orderly harvesting, operational procedures, and payment. Forest products must not be given away; abandoned; carelessly destroyed; used to offset costs of contracts; or traded for products, supplies, or services.

■ **Soil Conservation and Domestic Allotment Act of 1935.** Activities on forested lands are also subject to this Act (16 USC 590), which requires the application of soil conservation procedures on Federal lands.

■ **Clean Water Act (CWA) of 1977, as Amended.** Section 404, Permits for Dredged or Fill Material, pertains to wetland and floodplain protection. The EPA, in partnership with state and local governments, is responsible for protecting wetland resources. The major Federal wetlands regulations are jointly administered by the United States Army Corps of Engineers (USACE) and the EPA. The CWA established a permit program to regulate the discharge of dredge and fill material into waters of the United States, including most wetlands. The USF&WS



and the NMFS have important advisory roles in the permit review process. Over the past 30 years, numerous states have also enacted laws to regulate activities in wetlands, and some towns have adapted local wetlands protection ordinances.

Section 319, Nonpoint Source Management Programs, requires Federal agency plans to be consistent with state nonpoint source pollution abatement plans.

■ **National Environmental Policy Act (NEPA) of 1969.** In accordance with Government requirements for property disposal, 40 CFR 1500 - 1508 (CEQ NEPA regulations), plans for installation closure must address natural resources. Military facilities must also consider providing excess property to conservation organizations.

■ **EO 11990, Protection of Wetlands, and EO 11988, Floodplain Management, May 24, 1977.** EO 11990 provides policy to avoid adverse impacts on, or the modification of, wetlands by Federal agencies. Under EO 11988, Federal agencies must take action to identify and protect wetlands and floodplains, minimize the risk of flood loss and the destruction of wetlands, and preserve and enhance their natural and beneficial values.

■ Marine Corps Policy

Ecosystem Management. It is Marine Corps policy to incorporate ecosystem management as the basis for land use planning and management on Marine Corps installations. This approach takes a long-term view of human activities, considering military uses and biological resources as part of the same system. The goal is to preserve and enhance ecosystem integrity and to sustain both biological diversity and continued availability of resources for military and other human uses. Ecosystem-based management emphasizes multiple species conservation, the formation of partnerships to consider and manage cross-boundary ecosystems, the use of the best available scientific information in decision making, and the use of adaptive

management techniques in natural resources management.

Land Management. Land management practices and operations should be integrated into the environmental campaign to ensure that conservation measures are considered in the development, design, construction, and maintenance of military installations and in the conduct of military operations and training. Installations that have suitable habitats for conserving and managing natural ecosystems must prepare, maintain, and implement an Integrated Natural Resources Management Plan (INRMP). The objectives of the INRMP are to:



- Conserve, develop, manage, and maintain land, grounds, and water areas under its jurisdiction, using proven scientific methods, procedures, and techniques per Federal laws and EOs.
- Protect, conserve, and manage watersheds, wetlands, natural landscapes, soils, forests, fish and wildlife, and other natural resources.
- Manage natural resources to provide outdoor recreational opportunities.
- Provide for the optimum development of and access to land and water areas for military purposes, while maintaining ecological integrity.

REFERENCES

1. MCO P5090.2, Chapter 11, Natural Resources Management.
2. 40 CFR Part 230, EPA Wetlands Dredge and Fill Regulations. Subpart E, Section 230.41, outlines the potential impacts of dredge and fill material on special aquatic sites, specifically wetlands.
3. 33 CFR Parts 320 through 330, Corps of Engineers, Department of the Army, Application Procedures for Permits to Control Activities in U.S. Waters or Oceans.

4. 50 CFR Part 222, Endangered Fish or Wildlife Regulations. The lists of endangered and threatened wildlife and plants are found in 50 CFR Parts 17.11 and 17.12, respectively; the designated critical habitats for fish and wildlife, and plants, are listed in 50 CFR Parts 17.95 and 17.96, respectively.
5. NAVFACManual P-73, Vol. II, Navy Natural Resources Management Procedures Manual.
6. Wetlands Information Hotline (800) 832-7828.
7. DODI 4715.3, Environmental Conservation Program, May 3, 1996.

■ NOISE

WHAT IS IT?

Noise is unwanted sound. The degree to which noise disturbs others can be subjective and depends upon its intensity. The loudness of a sound is measured in units called decibels (dB). A zero on the decibel scale represents the lowest limit of human audible perception; the level of normal conversation is approximately 60 dB. Studies have shown that exposure to excessive noise intensities or moderate noise intensities for extended durations causes damage to human hearing. Extreme noise can cause physiological and psychological stress, resulting in blood vessel dilation, rise in blood pressure, headaches, irritability, nervousness, and aggressive behavior.

Marine Corps installations or activities that may be subject to state and local noise prevention regulations include airfields; weapon, rocket, or missile-firing ranges; vehicle test tracks; outdoor power-generating equipment; and demolition and explosive disposal sites.

CURRENT REQUIREMENTS

- **The Noise Pollution and Abatement Act of 1970.** This Act authorizes studies to investigate the effects of environmental noise on public health.
- **The Noise Control Act of 1972.** The Noise Control Act sets the goal of protecting all Americans from noise that jeopardizes their health and

welfare. This legislation was designed to establish noise standards and to regulate noise emissions caused by commercial products such as transportation and construction equipment. The Noise Control Act also specifies that Federal agencies should comply with Federal, state, and local requirements regarding the control and abatement of noise. The Noise Control Act exempts the regulation of noises caused by military weapons or combat-use equipment.



- **The Quiet Communities Act of 1978.** This statute amended the Noise Control Act by providing state and local governments with funds to promote the development of noise control programs on a local level, as long as the actions at the local level are consistent with Federal regulations. In this regard, numerous state and local governments have developed their own environmental noise regulations.

- **Occupational Safety and Health Administration (OSHA) Noise Standards.** OSHA is responsible for establishing regulations and guidelines for workplace noise pollution. The OSHA standards are 90 dB measured for a duration of 8 hours, 95 dB for 4 hours, 100 dB for 2 hours, and 140 dB maximum for impulse noises.

- **Air Installations Compatible Use Zones (AICUZ) Program.** The AICUZ program recognizes that some installation air operations are incompatible with potential land use in the vicinity of the installation. The AICUZ program seeks to restrict the use of such land to compatible uses through local zoning, state legislation, the acquisition of restrictive easements, and Federal Government acquisition of fee titles.

REFERENCES

1. MCO P5090.2, Chapter 13, Noise Management.
2. 40 CFR Parts 201 through 211, Noise Abatement Regulations.
3. 29 CFR Part 1910.95, OSHA Worker Noise Protection Regulations.
4. DODI 4715.9, Environmental Planning and Analysis, May 3, 1996.
5. DODI 4165.57, Air Installations Compatible Use Zones, November 8, 1977.
6. 32 CFR Part 256, Air Installations Compatible Use Zones.

■ PESTICIDE POLLUTION PREVENTION

WHAT IS IT?

A pest is any organism (e.g., bird, insect, rodent, bacteria, weed) that adversely affects the well-being of personnel and animals; attacks real property, supplies, equipment, or vegetation; or is otherwise considered undesirable.

A pesticide is a substance or mixture of substances, including biological agents, that are used to prevent, destroy, repel, or mitigate pests; these substances include insecticides, herbicides, fungicides, rodenticides, disinfectants, and plant growth regulators.

Pesticides are usually toxic chemicals. Integrated Pest Management (IPM) is a comprehensive approach to the prevention, elimination, or control of pests. IPM strives to reduce the use of toxic chemicals by (1) relying on a knowledge of the habitat and natural history of a pest; (2) understanding the pest population and the ecosystem; (3) selecting plants, building materials, or structural designs less prone to pest infestations or damage; and (4) using the most appropriate physical, biological, cultural, and chemical techniques.

CURRENT REQUIREMENTS

■ **The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1947, as Amended.** FIFRA established registration procedures for

pesticide products. Under FIFRA, the EPA is responsible for registering new pesticides to ensure that, when used according to label directions, these agents will not present unreasonable risks to human health

or the environment. The EPA may classify a product for restricted use if its toxicity warrants special handling. Restricted pesticides may be used only by or under the supervision of certified applicators who are trained to handle toxic chemicals.

**National Pesticide
Information Retrieval
System (NPIRS)**

■ **The Federal Food, Drug, and Cosmetic Act (FFDCA) of 1996.** FFDCA governs pesticide residue levels in food or feed crops. Under FFDCA, the EPA sets requirements to help prevent pesticide poisoning incidents in residential as well as in agricultural settings.

■ **DODI 4150.7, DOD Pest Management Program, April 22, 1996.** DODI 4150.7 implements policy, assigns responsibility, and prescribes procedures for the DOD Pest Management Program. The instruction specifies that IPM is the method of choice for DOD pest management and disease vector control. Components of the DOD program include:

- Requirement for each installation to have a pest management plan (PMP).
- Use of IPM.
- Installation consultative support, pest management program reviews, and audits.
- Training and certification of pest management personnel.
- Specifications for pesticides and pest management equipment.
- Contracting for commercial pest management services.
- Procedures for specialized pest management operations.

- Procedures for pest management and disease vector control in military contingency operations, readiness training exercises, and deployments.
- Reports and records.

Pesticide Measures of Merit (MOM). DODI 4150.7 also stipulates the following DOD MOMs:

- By the end of FY 1997, 100 percent of DOD installations will have pest management plans prepared, reviewed, and updated annually by pest management professionals.
- By the end of FY 1998, 100 percent of DOD's installation pesticide applicators will be properly certified (either by DOD or the appropriate state). Direct hire employees have a maximum of 2 years to become certified after initial employment. Contract employees should have the appropriate state certification when the contract is awarded.
- By the end of FY 2000, the amount of pesticides applied annually on DOD installations will be reduced by 50 percent from the 1993 baseline in pounds of active ingredients. The goal for this MOM must not be obtained by substituting more toxic pesticides that have lower application rates than the pesticide in use.

REFERENCES

1. MCO P5090.2, Chapter 14, Pesticide Pollution Prevention.
2. 40 CFR Parts 152 through 186, EPA Pesticide Regulations.
3. DODI 4150.7, DOD Pest Management Program, April 22, 1996.
4. National Pesticide Telecommunications Network (800) 858-7378.

■ POLLUTION PREVENTION

WHAT IS IT?

Pollution prevention is a concept that focuses on reducing pollution at its source. The pollution prevention concept emphasizes increased efficiency in the use of raw materials (especially HMs), energy, water, and other resources; in the use of less HMs; in the on-site reuse or recycling of waste; and in the purchase of materials with recycled content. Pollution prevention decreases HM use at the front end of a process and product, rather than managing wastes at the end of a process.

Pollution prevention is optimally achieved by reducing or eliminating the source of process waste material. Mechanisms for source reduction include process change, improved HM management, and the use of less HMs. When source reduction is not feasible, the preferred techniques, in order of preference, are recycling and treating waste to render it nonhazardous.

The primary benefits of implementing a pollution prevention program are:

- ***Protection of the environment,***
- ***Decrease in health risks through the use of less HMs,***
- ***Reduced liability potential resulting from toxic pollutant releases,***
- ***Economic benefits resulting from more efficient operations,***
- ***Reduced regulatory burden, and***
- ***Improved public image.***

CURRENT REQUIREMENTS

As discussed in Chapter 1, pollution prevention differs from other environmental programs because it encourages voluntary measures as opposed to regulatory compliance. Because pollution prevention encour-

ages the reduction in or elimination of all waste types generated, it has emerged as a cross-cutting concept pertinent to most other environmental program areas. Please see other relevant sections of this guide for other topics pertinent to pollution prevention:

- Air Quality (e.g., AFVs, ODSs, energy conservation);
- Drinking Water and Water Quality (e.g., water conservation);
- Emergency Planning and Response (e.g., release procedures and reporting);
- Hazardous Materials, Substances, and Wastes (e.g., HW minimization);
- Natural Resources (e.g., nonpoint source pollution);
- Pesticide Pollution Prevention (e.g., integrated pest management); and
- Solid Waste and Resource Recovery (e.g., reduction, recycling, and Qualified Recycling Program (QRP)).

Requirements that shape the Marine Corps pollution prevention program are discussed below.

■ **The Pollution Prevention Act (PPA) of 1990.** As national policy of the United States, the PPA states that “pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner, whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.” The PPA sets national policy, but does not impose regulatory requirements.

■ **Resource Conservation and Recovery Act (RCRA) of 1976, Amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984.** HSWA requires that every HW generator:

- Certify on every HW manifest that the generator has a viable program to minimize the amount and toxicity of wastes generated and that the generator’s proposed storage, treatment, or disposal methods minimize the present and future threat to human health and the environment.
- Describe in the Biennial HW Report to the EPA Regional Administrator efforts to reduce waste volumes and toxicity.
- Certify in its facility operating record that the generator has a waste reduction program in place, as part of its TSD facility permit requirements.



■ **Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986.** EPCRA requires that the public receive timely and comprehensive information about possible or potential hazards associated with toxic chemical releases and requires the submission of information to the EPA on chemical inventories and releases (TRI reporting).

■ **The Energy Policy Act (EPACT) of 1992.** EPACT seeks to reduce the Nation’s dependency on imported fuels, improve energy efficiency, and reduce air emissions from fossil fuels. Under EPACT, Federal agencies must acquire increasing numbers of AFVs, reduce energy and water consumption, and increase energy efficiency.

■ **EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements of 1986.** EO 12856 requires Federal

agencies to comply with the provisions of EPCRA and the PPA and to reduce the release of toxic chemicals listed in the EO by 50 percent by December 31, 1999 (using 1994 as the baseline year). Each installation must strive to achieve this 50 percent reduction, as much as possible, through source reduction practices. Each DOD facility not scheduled for operational closure by December 31, 1997, was required to develop a written pollution prevention plan by the end of 1995, setting forth the facility's contribution to the 50 percent goal.

■ **DODI 4715.4, Pollution Prevention, June 18, 1996.** DODI 4715.4 establishes DOD pollution prevention policies and goals for toxic chemical releases, HW generation, and SW reductions; SW recycling; and AFV acquisitions.

■ **Marine Corps Program.** The Marine Corps program includes the following elements to achieve pollution prevention goals:

- Reducing the amount of HM used and HW generated through up-front HM control in procurement, supply, distribution, and use and through the Marine Corps Hazardous Materials Consolidation Program (HCP).

The HCP concept includes any combination of the following:

- Centralized HM management,
 - Consolidated HM issue/storage facilities,
 - HM/HW tracking,
 - Inventory management,
 - Return and reissue of unused, but re-usable, HM,
 - Authorized use lists (AULs),
 - Order/dispense procedures, and
 - Training and awareness.
- Establishing methods for substituting materials that are non-hazardous or less hazardous in nature.

- Developing and incorporating new technology or materials that reduce the impact on the environment, function more safely, and result in reduced emissions.
- Promoting the use of environmentally preferable products and services.
- Complying with EPCRA reporting requirements.
- Requiring all installations to develop pollution prevention plans.
- Encouraging pollution prevention awareness in the CETEP program.
- Implementing the PACE program; as discussed in Chapter 1, the Marine Corps encourages installations to seek pollution prevention solutions to compliance issues.

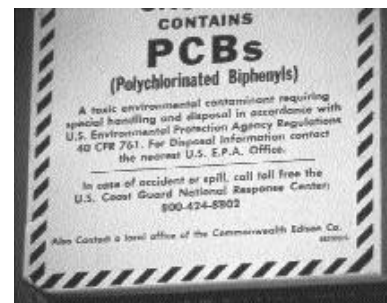
REFERENCES

1. MCO P5090.2, Chapter 15, Pollution Prevention.
2. 40 CFR Part 262.41(a)(6) and (7), Biennial Report RCRAHWM Minimization Requirements.
3. DODI 4715.4, Pollution Prevention, June 18, 1996.

■ POLYCHLORINATED BIPHENYLS (PCBs)

WHAT ARE THEY?

The term PCB refers to any biphenyl molecule that has been chlorinated to varying degrees or to any combination of materials containing such a chemical. Excessive exposure to PCBs can cause severe acne-like eruptions (chloracne) in humans and has been shown to induce cancer in mammals. Prior to stringent regulations, PCBs were used in fire retardants in capacitors, heat transfer systems, switches and voltage regulators, circuit breakers, and electrical cables. Often,



PCBs were added to equipment without being specified in material or equipment procurement specifications. Thus, the presence of PCBs cannot always be determined through the review of procurement documents or the examination of equipment labels.

CURRENT REQUIREMENTS

■ **The Toxic Substances Control Act (TSCA) of 1976.** TSCA prohibits the manufacture, processing, and distribution in commerce of PCBs, except as exempted by the EPA. TSCA imposes requirements for the use, marking, storage, and disposal of PCBs including generator identification numbers and PCB waste manifests. The Federal PCB regulations allow continued use of PCB-containing equipment, such as capacitors, transformers, and other equipment through the end of their useful life, but the regulations ban the use of PCBs in any manner that is not totally enclosed. Facilities using PCB-containing equipment must label, inspect, and correct any leaks and maintain records for such equipment.

PCB-containing equipment and any fluids with concentrations of 50 ppm or greater are subject to Federal regulations, although some state RCRA programs place additional restrictions on the handling and disposal of PCBs with concentrations less than 50 ppm. Fluids containing more than 500 ppm of PCBs must be incinerated in EPA-permitted incinerators.

■ **Hazardous and Solid Waste Amendments (HSWA) of 1984.** HSWA prohibits the land disposal of waste containing PCBs at concentrations greater than 50 ppm for liquids or 1,000 ppm for nonliquids.

■ **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.** CERCLA lists PCBs as HSs for which emergency planning and spill reporting are required.

■ **Marine Corps PCB Program.** The Marine Corps PCB policy requires installations to eliminate all PCB (500 ppm or greater) transformers and large capacitors by October 1998 and to eliminate all PCB-contaminated

(50 ppm or greater, but less than 500 ppm) transformers by October 2003. The PCB elimination plan must be updated annually until all PCBs and PCB-containing items have been removed from the installation. All Marine Corps installations that have PCB items still in use or that generate, store, treat, or dispose of PCBs must prepare an annual inventory of all PCBs and PCB-containing items on the installation and of all those sent off site for disposal during the past year.

REFERENCES

1. MCO P5090.2, Chapter 19, Polychlorinated Biphenyls Management.
2. 40 CFR Part 761, PCB Regulations.
3. EPA TSCA Hotline (202) 554-1404.

■ RADON

WHAT IS IT?

Radon is a naturally occurring colorless, odorless, radioactive gas by-product that results from the degradation of uranium in the earth. Research has shown that prolonged exposure to radon increases the risk of lung cancer. The risk depends on the concentration and duration of exposure. Radon is a hazard primarily in enclosed spaces, such as a home or office building where it can accumulate to unacceptable levels. Radon



can enter buildings through dirt floors, openings around pipes, sumps, cracks in concrete floors and walls, floor drains, and joints. Factors involved in radon accumulation include building construction, heating and cooling systems, and the underlying soil and rock.

CURRENT REQUIREMENTS

■ **EPA Recommendations.** There are no Federal regulations for radon in the home or workplace. However, the EPA recommends remediation for radon levels greater than 4 picocuries per liter (pCi/L) of air and requires immediate mitigative actions for radon levels greater than 200 pCi/L. The Marine Corps action level for radon is 4 pCi/L.

■ **Radon in Federal Buildings.** The Indoor Radon Abatement Section of TSCA requires Federal departments to conduct a study of radon levels in Federal buildings and to provide results of the study to the EPA. The EPA has approved the Navy Radon Assessment and Mitigation Program (NAVRAMP) as the plan to identify, mitigate, and prevent radon contamination in Marine Corps-occupied buildings. All Marine Corps facilities must institute the NAVRAMP testing program to identify levels of indoor radon. Buildings with indoor radon levels above 4 pCi/L must be mitigated. Marine Corps installations must also incorporate radon reduction techniques into the design and construction of new structures, where necessary, because of regulatory requirements, historical data, or geological conditions.

REFERENCES

1. MCO P5090.2, Chapter 6, Air Quality Management.
2. A Citizen's Guide to Radon (Second Edition) (EPA 402K92001), September 1994.
3. Model Standards and Techniques for Control of Radon in New Residential Buildings (EPA 402R94009), March 1994.
4. National Radon Hotline (800) 767-7236.

■ SOLID WASTE (SW) AND RESOURCE RECOVERY

WHAT IS IT?

SW is defined as any nonhazardous garbage; refuse; trash; rubbish; sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; or any other discarded material. It includes solid, semi-solid, liquid, or gaseous material resulting from industrial, construction, commercial, mining and agriculture operations, and from any community or residential (hazardous and non-hazardous) activities. If the SW satisfies the definition of an HW as defined on page 78, it is regulated under RCRA Subtitle C and should be handled as an HW. If it is an infectious waste, it is typically regulated by the state as discussed on pages 90-91. Some oil or gas wastes (e.g., from a leaking underground storage tank) are regulated under RCRA Subtitle I and are discussed on pages 116-117.

EPA studies have shown that more than 11 billion tons of SW are generated each year in the United States. Landfilling and incineration are the most common disposal practices because they have been the least expensive way to dispose of SW. However, landfill closures, moratoriums on incinerator operation and construction, and more stringent SW disposal regulations are increasing the cost of municipal SW disposal, creating a greater incentive for source reduction and recycling.

CURRENT REQUIREMENTS

■ **The Solid Waste Disposal Act (SWDA) of 1965, as Amended by the Resource Conservation and Recovery Act (RCRA) of 1976.** Generators must manage



nonhazardous SW in accordance with Subtitle D of RCRA. In October 1991, the EPA published a final rule addressing new criteria for SW disposal facilities. The rule establishes facility design and operating criteria for landfills, requirements for groundwater monitoring, and closure and post-closure care requirements for municipal landfills. The SWDA encourages the beneficial reuse of wastes through recycling and burning for energy recovery.

State and local governments have responsibility for promulgating regulations related to the management of Subtitle D wastes. For instance, many states require permits for SW landfills and incinerators. States may also impose handling requirements for special wastes such as tires, white goods, household HW, and composting. Subtitle D encourages local governments to promote the increased use of product separation, source reduction, and recycling to reduce the volume of SW.

■ **Federal Facility Compliance Act (FFCA) of 1992.** The FFCA requires that Federal facilities comply with all Federal, state, interstate, and local requirements concerning the disposal and management of SW.

■ **Military Construction Authorization Act of 1975.** This Act, as amended in 1982, allows the proceeds from the sale of recyclable material to be credited to the installation to cover (1) the cost of recycling and of environmental or energy conservation projects and (2) the cost of morale, welfare, and recreation activities.

■ **Clean Air Act (CAA) of 1963, as Amended.** The CAA contains requirements for the disposal of asbestos waste in landfills.

■ **EO 12873 on Federal Acquisition, Recycling, and Waste Prevention, October 20, 1993.** EO 12873 requires the Federal Government to maximize the use of natural resources by recycling and preventing waste, wherever possible, in addition to using and procuring environmentally preferable products and services.

■ **DODI 4715.4, Pollution Prevention, June 18, 1996.** DODI 4715.4 requires that all installations and commands:

- Establish or participate in, where cost-effective, Qualified Recycling Programs (QRPs) and obligate contractors to participate in a recycling program.
- Divert recyclable materials (e.g., high-quality paper, plastics, metal cans, glass, nonhazardous used oil, tires) from the nonhazardous SW stream, where economically feasible.
- Ensure that excluded materials, including those listed in 40 CFR 172.2(b)(3), are not sold through a QRP.
- Develop an accounting and control system for the recycling program that provides detailed management and audit information, tracks the quantity of material handled, and tracks income and expenditures in accordance with the Military Construction and Authorization Act. First consideration should be given, after cost recovery of the recycling operation, to expenditures for projects included in the installation's pollution prevention plan.
- Reduce, by the end of calendar year 1999, the disposal of nonhazardous SW by 50 percent (as measured by weight) from the 1992 baseline and achieve the goal to recycle 50 percent of the SW generated.

■ **Defense Reutilization and Marketing Office (DRMO).** Installations may sell recyclable materials directly or consign them to the DRMO. Installations must ensure that appropriate management controls are in place to recycle materials that may be hazardous, such as lead-acid batteries.

REFERENCES

1. MCO P5090.2, Chapter 17, Solid Waste Management and Resource Recovery.
2. 40 CFR Parts 240 through 258, SW Regulations.
3. EPA RCRA, Superfund, and EPCRA Hotline (800) 424-9346.

■ UNDERGROUND STORAGE TANKS (USTs)

WHAT ARE THEY?

USTs have been widely used over the past 40 years to store petroleum products, chemicals, and wastes. Many tanks have leaked and caused groundwater contamination. Comprehensive UST inventories at Marine Corps installations have discovered more than 6,000 tanks. The EPA has estimated that as many as 25 percent of USTs may be leaking. Generally, regulated USTs are those that have 10 percent or more of their volume underground (including the piping) and that exceed a 1,100 gallon capacity. However, state definitions of regulated tanks can be much more stringent.

CURRENT REQUIREMENTS

■ Subtitle I of the Resource Conservation and Recovery Act (RCRA) of 1976, as Amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984. Subtitle I established a comprehensive regulatory program for USTs containing regulated substances. This Subtitle also requires owners of USTs to notify state authorities (Section 9002) and requires the EPA to issue regulations governing detection, prevention, and correction of leaks from USTs, including financial responsibility requirements and new tank performance standards (Section 9003).

The EPA regulates this program under 40 CFR Part 280. In addition, many states have promulgated UST regulations.

Generally, tanks installed after December 1988 must meet standards for corrosion protection, spill and overflow protection, proper

installation, and leak detection. Tanks installed prior to December 1988 must have corrosion protection and leak detection with spill and overflow protection. The regulations establish strict timetables for retrofitting existing USTs with spill and overflow protection, depending on the age, the contents, and the construction of the tank.

REFERENCES

1. MCO P5090.2, Chapter 18, Underground Storage Tanks.
2. *Musts for USTs: A Summary of Federal Regulations for Underground Storage Tank Systems* (EPA 510K95002), July 1995.
3. 40 CFR Parts 264 and 265 (Permitted and Interim Status TSDF Standards) and Part 280 (USTs).
4. EPA RCRA, Superfund, and EPCRA Hotline (800) 424-9346.

■ WATER QUALITY

WHAT IS IT?

Water quality concerns two main areas: wastewater and storm water runoff. An installation usually generates wastewater from domestic, sanitary, and industrial sources (e.g., vehicle washing, x-ray and photograph development). Wastewater is either treated on the installation by a Marine Corps-Owned Treatment Works (MCOTW) or discharged to a Publicly-Owned Treatment Works (POTW). Industrial wastewater discharged to a POTW typically requires some form of pretreatment prior to discharge.

Storm water management is primarily concerned with the storm water runoff associated with industrial activities such as HM storage, vehicle maintenance, and aircraft deicing. Soil erosion and sedimentation caused by storm water runoff is also an important consideration.

Failure to comply with wastewater discharge or storm water permits can result in substantial fines and public embarrassment to the Marine Corps.



CURRENT REQUIREMENTS

■ The Federal Water Pollution Control Act (FWPCA) of 1972, the Clean Water Act (CWA) of 1977, and the Water Quality Act of 1987.

These statutes have the objective of restoring and maintaining the chemical, physical, and biological integrity of the Nation's navigable waters. The Act contains provisions for regulating both domestic and industrial wastewaters. The primary tool for wastewater management is the National Pollutant Discharge Elimination System (NPDES). The NPDES requires permits for the discharge of pollutants from any point source into waters of the United States. The EPA requires permits for industrial facilities as well as facilities treating domestic wastewater. NPDES permits typically contain limits on the quantities of specific pollutants that can be discharged from the permitted facility. These permits also contain requirements for sample collection frequency, a wastewater discharge analysis, and reporting to permit authorities.

The CWA Amendments of 1987 expanded the NPDES program to include point source discharges of storm water "associated with industrial activity" as defined in 40 CFR 122. Industrial activities on Marine Corps installations that fall under this definition include electroplating and metal finishing operations, HW TSDFs, DRMOs, landfills and land application sites, vehicle and aircraft maintenance facilities, air station de-icing operations, and wastewater treatment facilities that treat over 1 million gallons per day. The program also includes certain construction activities that disturb 5 acres or more.

Most Marine Corps installations located in the United States are required to be covered under a general storm water permit issued by the state for industrial activities. The permit typically requires the sampling and inspection of storm water outfalls, identification and elimination of nonstorm water discharges, and development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). An SWPPP identifies installation areas with a potential for causing a release of significant amounts of toxic or hazardous pollutants to waters of the United States.

It also establishes Best Management Practices (BMPs) to control pollution from runoff. BMPs can be structural, such as the installation of oil/water separators to remove pollutants, or systematic, such as housekeeping and inspection procedures to reduce the amount of storm water exposed to potential pollutants. Most general storm water permits require that the installation's SWPPP be implemented within 1 year after the permit is granted.



An important component of the NPDES-permitting process is the pretreatment program, which sets standards for the control of waste from indirect dischargers—industrial sources of pollution that discharge effluent to POTWs, rather than to water bodies. The EPA has issued categorical pretreatment standards for certain industrial users and general pretreatment standards for all industrial users. Many Marine Corps installations discharge into POTWs. Examples of activities which are regulated under categorical standards are metal products and machinery operations such as electroplating, solvent degreasing, and painting. States and local municipalities can also develop their own discharge standards to regulate indirect industrial waste discharges.

Another portion of the CWA concerns water quality planning and management. Components of water quality planning include the establishment of water quality standards (WQSs). WQSs (usually established by states) define the water quality goals for a water body by designating the use or uses of the water and by setting criteria necessary to protect those uses.

■ **Federal Facility Compliance Act (FFCA) of 1992.** The FFCA makes it unlawful to introduce any pollutant that is a HW into a Federally-owned treatment works (FOTW).

■ **Oil Pollution Act (OPA) of 1990.** The OPA prohibits harmful discharges of oil and HSs into waters of the United States or discharges that may affect natural resources owned or managed by the United States. The OPA requires owners and operators of tanks, vessels, and facilities to develop and submit facility response plans if facility locations might cause substantial harm by discharging oil or HSs into the environment.

■ **Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1970.** MPRSA bars the transport of any material from the United States for the purpose of dumping into the ocean waters without a permit issued by the EPA and bars the dumping of material from outside the United States within the territorial sea or contiguous zone. Dumping refers to the intentional disposition of materials including sinking/disposing of ships. It does not include routine discharge of effluent incidental to the propulsion or operation of motor driven equipment on vessels. It does, however, include the discharge of contaminated material received from another ship or shore source.

■ **Coastal Zone Management Act (CZMA) of 1972.** The CZMA plays a significant role in water quality management, particularly for nonpoint source pollution. State coastal zone management programs incorporate flood control, sediment control, and storm water runoff control statutes. Under the CZMA, a Federal action that may affect the coastal zone must be carried out in a manner that is as consistent as possible with the state program.

REFERENCES

1. MCO P5090.2, Chapter 20, Water Quality Management.
2. 40 CFR Parts 122 through 140, CWA Regulations.
3. 40 CFR Parts 403 through 471, Industrial Category Discharge Standards.

4. 40 CFR Part 503, Sewage Sludge Use and Disposal Standards.
5. 40 CFR Parts 220 through 225 and 227 through 229, Ocean Dumping Regulations and Criteria.



A APPENDIX A REGULATORY INSPECTIONS

PRIOR TO RECEIVING NOTICE OF A REGULATORY INSPECTION

The following is a list of proactive measures to ensure that your installation is prepared to undergo an inspection:

- Perform internal inspections to prepare installation activities for an actual regulatory agency compliance inspection and to ensure overall installation compliance.
- Establish a system to track and account for the corrective actions of previous environmental noncompliance. Maintain copies of previous inspection reports. The Marine Corps Automated Compliance Evaluation (ACE) system is designed for these purposes and has been distributed to all installations.
- Ensure prompt follow-up to correct deficiencies identified during the Benchmark ECE and annual installation Self-Audit (see pages 45–46).
- Establish environmental points of contact (POCs) at all activities down to the unit level. Train these POCs on meeting the inspectors, showing them the operation, and answering any compliance-related questions.

- Ensure that environmental records/files are legible, organized chronologically, and maintained. Examples include hazardous waste management plans/SOPs, spill plans/SOPs, waste analysis plans/SOPs, closure plans, manifests, weekly inspection records, training records/plans, waste management contracts, safety and security plans, land disposal restriction forms, permits/permit applications, turn-in records, and any other records required by state and local agencies.
- Mark confidential documents, and inform inspectors of their confidential nature.
- Maintain open communication with regulatory agencies.

UPON RECEIVING NOTICE OF A REGULATORY INSPECTION

- A regulatory inspection "notification letter," signed by the Installation Commander, must include authorization from the commander for full cooperation and open responses to the inspection team. It must also identify the inspecting agency and its representatives, type of inspection, date and time of the inspectors' arrival, units or activities to be inspected, and potential impacts of the inspection (e.g., NOV's, fines, publicity).
- Distribute the notification letter (as soon as practical before the regulatory inspection) to pertinent activities both directly and indirectly involved with environmental operations.

- If there is not enough advance notice to prepare and distribute a notification letter, communicate directly and/or by phone or e-mail.

DURING THE INSPECTION

- Request that inspectors provide an in-brief to you or your designee upon entering the installation. Legal representatives such as Counsel or a Staff Judge Advocate (SJA) should attend. During the in-brief, agreements will be reached on units/activities to be inspected. As soon as possible, notify the POC in these units.
- Instruct representatives from the environmental office to escort the inspectors for the duration of the inspection. Escorts should be chosen based on their knowledge of the activities being inspected, their knowledge of the relevant environmental regulations, and their communication and interpersonal skills.
- Ensure that escorts help inspectors (1) locate the activity to be evaluated and meet with the POC; (2) document and answer inspector questions; (3) obtain all documents requested; and (4) represent the installation positively.
- Conduct status meetings after each day to review findings and plan for the next day.

PROTOCOL FOR A REGULATORY INSPECTION

- DO notify the chain of command that regulators are on site.
- DO ensure that a member of the environmental office is present during every phase of the inspection to answer technical questions or respond to issues unfamiliar to the POC.
- DO politely ask the inspectors for their credentials and the purpose of the visit (especially if an inspector is from a division that performs criminal investigations).
- DO keep a log and a copy of all documents provided to inspectors. Take detailed notes during the inspection.
- DO request a copy of the inspector's report.
- DO request assistance from regulators (who provide access to compliance expertise) on technical issues and concerns.
- DO NOT lie, conceal, or destroy documents or try to hide areas of noncompliance.
- DO NOT volunteer unnecessary or unsolicited information.
- DO NOT try to answer questions if you do not know the answer. Tell the regulator that you are not certain, but that you will ask your staff to supply the information.

B APPENDIX B TERMS AND ACRONYMS

ACE	Automated Compliance Evaluation. The ACE computer system, used for tracking compliance and conducting ECEs, includes an installation-unique checklist of Federal, state, and Marine Corps policy requirements sponsored by CMC(LF).
ACHP	Advisory Council on Historic Preservation. The ACHP is authorized to review and comment on all Federal undertakings that may affect properties either listed in the National Register of Historic Places (NRHP) or those that are eligible for listing.
Acid Rain	Acidified precipitation caused by the atmospheric transformation of sulfur dioxide and oxides of nitrogen.
AFV	Alternative Fuel Vehicle. Passenger cars or trucks (light-duty vehicles) and heavy-duty trucks or buses that have been designed or modified to operate on alternative fuels as defined in CAA Section 241(2).
AICUZ	Air Installations Compatible Use Zone. Program to identify the noise and safety impacts associated with aircraft operation on and off base.
AIRFA	American Indian Religious Freedom Act. AIRFA requires Federal agencies to consult with Native American traditional religious leaders and to consider, but not necessarily defer to, Native American religious values.
Alternative Fuels	Substitutes for traditional petroleum products (e.g., gasoline, diesel fuel), including methanol, ethanol, and gaseous fuels.
ARPA	Archaeological Resources Protection Act. ARPA requires Federal land managers to issue permits for the excavation or removal of artifacts from lands under their jurisdiction and to notify relevant Native American tribes if significant religious or cultural sites will be affected.

CAA	Clean Air Act. Legislation designed to improve the quality of the Nation's air by preventing and controlling air pollution from stationary and mobile sources.	Community Water System	A public water system that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents (per 40 CFR 141).
CatEx	Categorical Exclusion. A category of actions that will not have a significant effect, individually or cumulatively, according to the DON, on human health and the environment under normal circumstances, and that require neither an EAnor an EIS.	CompTRAK	Marine Corps Compliance Tracking System. A Marine Corps database that tracks environmental compliance requirements and the compliance status of installations.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act. Also known as Superfund, CERCLA regulates the cleanup of improperly disposed of HSS. CERCLAWas amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).	Conservation	The planned management, use, and protection of natural resources to provide sustained use and continued benefit for present and future generations and the prevention of exploitation, destruction, waste, and/or neglect of natural resources.
CERFA	The Community Environmental Response Facilitation Act. CERFA amended CERCLAin 1992 by requiring the Federal Government, before termination of Federal activities on property owned by the Government, to ensure that no HS and no petroleum products or their derivatives were stored, released, or disposed of on that property.	Cooperative Fish and Wildlife Plan	The component of the Natural Resources Management Plan that describes how fish and wildlife resources at an installation must be managed. The Cooperative Plan is coordinated with the Fish and Wildlife Service and the appropriate state agency.
CEQ	Council on Environmental Quality. CEQ, established through NEPA Section 202, is responsible for issuing regulations that implement the provisions of NEPA.	Critical Habitat	A designated area declared essential for the survival of a protected species under the authority of the Endangered Species Act (ESA).
CETEP	Comprehensive Environmental Training and Education Program. CETEP was designed to ensure that high quality, efficient, and effective environmental training, education, and information are provided at all levels of the Marine Corps.	Cultural Resources	A generic term commonly used to include buildings, structures, districts, sites, and objects of significance in history, architecture, archaeology, engineering, or culture.
CFCs	Chlorofluorocarbons. A family of fully halogenated hydrocarbons containing fluorine and chlorine. These substances are environmentally harmful because they deplete the earth's stratospheric ozone layer.	CZMA	Coastal Zone Management Act. State coastal zone management programs approved under this 1972 Act incorporate flood control, sediment control, grading control, and storm water runoff control statutes. Under the CZMA, a Federal action that affects any land or water use or natural resource of the coastal zone must be carried out in a manner that is consistent to the maximum extent practicable with enforceable policies of the state management programs.
CFR	Code of Federal Regulations. The annual compilation of all current regulations issued in final form by any Federal regulatory agency.	dB	Decibel. A measure of loudness or intensity of sound.
Coastal Zone	An area specifically identified or otherwise delineated by a state in its approved coastal zone management plan. A coastal zone includes ocean water and adjacent land that exert an influence on the uses of the sea and its ecology.	Deficiency	ECE term that includes findings (deficiencies that could result in an NOV or other enforcement action if discovered by a regulatory agency), discrepancies (deficiencies that would not normally result in an enforcement action but that reflect poor management practices or failure to follow military orders or directives), and issues (deficiencies beyond the capability of the commander to resolve).

Discharge	Term describing any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a substance.
Disposal	The discharge, deposit, injection, dumping, spilling, leaking, or placing of any SW or HW into or on any land or water so that such SW or HW, or any constituent thereof, may enter the environment, be emitted into the air, or be discharged into any waters, including groundwater.
DRMO	Defense Reutilization and Marketing Office. DRMO assists the military services in disposing of surplus or waste materials, in reaching the DOD waste minimization goals, and in reducing the cost for hazardous waste disposal.
EA	Environmental Assessment. A concise document that provides evidence and analysis for determining whether to prepare an EIS or a FONSI.
ECE	Environmental Compliance Evaluation. A multi-media examination of an installation's or facility's environmental programs to identify possible compliance deficiencies.
EHS	Extremely Hazardous Substance. Any substance listed in Appendix A or B of 40 CFR 355.
EIRB	Environmental Impact Review Board. A selected group of subject matter experts appointed by the CG/CO of the command. The EIRB reviews NEPA environmental documentation to determine whether the potential for environmental degradation or public controversy exists.
EIS	Environmental Impact Statement. A NEPA document that provides a full and fair discussion of significant environmental impacts of major Federal actions and informs decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of human health and the environment.
EMH	Environmental Management Hierarchy. National policy established by the PPA that "pollution should be prevented at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into

	the environment should be employed only as a last resort and should be conducted in an environmentally safe manner."
Emission Standard	Permissible limit of air emissions established by regulatory authorities.
Endangered or Threatened Species	A species of flora or fauna that has been listed by the USF&WS or the NMFS for special protection and management under the ESA.
EO	Executive Order. An order that is issued by the executive head of a government (e.g., President or governor) and that carries the force of law.
EPA Identification Number	A number assigned by the EPA or a state to each HW generator, transporter, and treatment, storage, or disposal facility.
EPACT	Energy Policy Act. EPACT requires Federal agencies to acquire AFVs, reduce energy and water consumption, and increase energy efficiency.
EPCRA	Emergency Planning and Community Right-to-Know Act. EPCRA provides local governments with information about possible chemical hazards in the community. Also known as SARA Title III.
ERCs	Emissions Reduction Credits (Clean Air Act). ERCs are quantifiable permanent air pollution emission reductions that are greater than those legally required.
ESA	Endangered Species Act. Legislation that protects threatened and endangered species and the ecosystems supporting those species.
Excluded Materials	Excluded materials include precious metal-bearing scrap; HW; ODSs; unopened containers of solvents, paints, or oil; and repairable items. Excluded items may not be sold through a QRP, and the proceeds from their sale will not be returned to a QRP.
Facility	The regulatory definitions under RCRA, CERCLA, and EPCRA, respectively, are as follows: All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing,

	<p>or disposing of HW. A facility may consist of several treatment, storage, or disposal operation units. (40 CFR260.10)</p> <p>Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly-owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any site or area, where an HS has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer use or any vessel. (40 CFR 300.5)</p> <p>All buildings, equipment, structures, and other stationary items that are located on a single site or on contiguous or adjacent sites and that are owned or operated by the same person. For the purposes of emergency release notification, the term includes motor vehicles, rolling stock, and aircraft. (40 CFR370.2)</p>	FOTW	Federally-Owned Treatment Works. Facilities that treat wastewater and that are owned and operated by a Federal agency.
		FR	<i>Federal Register</i> . A daily Federal publication that formally documents proposed and promulgated (final) regulations.
		FRP	Facility Response Plan. FRPs ensure that appropriate removal actions will be initiated in response to oil discharges. FRPs are required for certain nontransportation-related onshore facilities, marine transportation-related facilities, bulk packaging containing oil, onshore oil pipelines, and offshore facilities and pipelines.
		FWPCA, CWA, and WQA	Federal Water Pollution Control Act (FWPCA), Clean Water Act (CWA), Water Quality Act (WQA), and Amendments. The intent of these Acts is to restore and protect the integrity of the Nation's waters by controlling the discharge of pollutants into those waters; by eliminating the introduction of pollutants into waters of the United States; by ensuring water quality that protects and propagates fish, shellfish, and wildlife; and by providing for recreation in and on the water.
Federal Facility Docket	A list developed under SARAt to identify Federal facilities that manage, or have managed in the past, hazardous wastes or wastes that may be contaminated with hazardous substances.		
FFA	Federal Facility Agreement. A formal, negotiated, and legal agreement between the DON and either the EPA or the state, that establishes objectives, responsibilities, procedures, and schedules for the RI/FS phases at an NPL installation.	Groundwater	Water contained in underground reserves or aquifers.
FFCA	Federal Facility Compliance Act. The FFCA requires that Federal facilities comply with all provisions of Federal, state, interstate, and local laws and regulations implementing RCRA.	HARP	Historic and Archaeological Resources Protection. Under the NHPA, Federal land managers must develop a HARP program to locate, identify, and evaluate historic properties on their installation.
FGS	Final Governing Standards. The FGS establish policy for Marine Corps facilities in foreign countries.	Hazardous Chemical	Any chemical that is a physical or health hazard as defined under 29 CFR 1910.1200(c).
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act. This Act regulates the licensing or registration of pesticides.	HAZCOM	Hazard Communication. Managers have a responsibility to notify employees about workplace hazards.
FONSI	Finding of No Significant Impact. A document that presents reasons why an action, not otherwise categorically excluded, will not have a significant effect on human health and the environment and for which an EIS will not be prepared.	HCP	Hazardous Material Consolidation Program. This Marine Corps-wide program is designed to achieve HM life-cycle control and management through the application of sound management practices that minimize the types and quantities of HM procured, stored, distributed, and used to accomplish mission requirements at commands and installations.

HM	Hazardous Material. Chemicals that have been determined by the Secretary of Transportation to present risks to safety, health, and property during transportation (listed in 49 CFR 172).
HMIS	Hazardous Materials Information System. A Defense Logistics Agency (DLA)-prepared database containing information on hazardous chemicals used throughout DOD.
HS	Hazardous Substance. Any substance defined by CERCLA Section 101(14) and listed in 40 CFR 302.
HSWA	Hazardous and Solid Waste Amendments (1984) to RCRA. HSWA expanded and strengthened the regulation of hazardous and solid wastes.
HW	Hazardous Waste. HW identified in RCRA as waste that, because of its quantity, concentration, or physical or chemical characteristics, may cause or significantly contribute to an increase in mortality, to a serious irreversible or incapacitating reversible illness, or may pose a substantial hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed, excluding infectious or radioactive waste (listed and defined in 40 CFR 261).
HW Facility Contingency Plan	HW facility contingency plans help to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of HW or HW constituents into air, soil, or surface water.
IAG	Interagency Agreement. The IAG is a formal agreement between the DON and either the EPA or the state and establishes objectives, responsibilities, procedures, and schedules for remediation at NPL and non-NPL installations.
ICP	Integrated Contingency Plan. Provisions within many statutes (e.g., CWA, OPA, CERCLA, RCRA) address emergency planning and response for uncontrolled releases of oil and hazardous substances (OHSs) to the Nation's water, land, and air. These statutes contain overlapping requirements. Marine Corps installations should follow the NRT ICP Guidance (June 5, 1996), as appropriate, to meet multiple plan requirements in a single plan.

ICRMP	Integrated Cultural Resources Management Plan. A plan to locate, identify, and evaluate all historic properties on an installation.
Incineration	Disposal of waste materials through controlled burning.
INRMP	Integrated Natural Resources Management Plan. An ecosystem management plan that shows the interrelationships of individual components of natural resources management (fish and wildlife, forestry, land management, public access) to mission requirements and other land use activities affecting an installation's natural resources.
IPM	Integrated Pest Management. IPM is a comprehensive approach to the prevention, elimination, or control of pests.
IR Program	Installation Restoration or Installation Restoration Program. A program to identify, investigate, and clean up contamination on DOD property.
ITS	Individual Training Standard. ITSs are used by Installation and Unit Commanders to establish training plans and courses of instruction and to determine the proficiency of individual Marines.
Leachate	Liquid material produced when surface water or ground-water contacts solid waste and is typically generated by the percolation of liquids through landfills.
LEPC	Local Emergency Planning Committee. A committee that is required by SARA Title III, or EPCRA, to prepare an emergency response plan for the local emergency planning district it represents.
Major Source	Any source capable of emitting more than a threshold amount of a particular air pollutant per year. Threshold amounts vary according to the attainment classification of the area in which the source is located and according to the pollutant(s).
MCL	Maximum Contaminant Level. The allowable level of certain organic and inorganic constituents in drinking water.
MILCON	Military Construction Program. A repair or construction project that exceeds the CMC(LF) construction or repair

	(M2/R2) funding threshold levels and requires Congressional approval.
MPRSA	Marine Protection, Research, and Sanctuaries Act. MPRSA restricts the dumping of all types of materials that would adversely affect human health and the welfare of the marine environment, originating from within and outside of the United States into ocean waters.
MSDS	Material Safety Data Sheet. Information sheets describing the potential hazards, chemical or physical properties, and health effects of a substance.
NAAQS	National Ambient Air Quality Standards. Ambient air standards set by the EPA for designated pollutants; such standards are achieved through State Implementation Plans (SIPs).
NAGPRA	Native American Grave Protection and Repatriation Act. Under this 1990 Act, discovery of suspected Native American human remains during a Federal undertaking requires immediate cessation of an activity for a minimum of 30 days and consultation with Native American groups. Excavations into sites that may contain, or are likely to contain, human remains, funerary objects, sacred objects, or items of cultural patrimony require notification and consultation with appropriate Native American groups.
National Historic Landmark	A resource designated by the Secretary of the Interior as having exceptional significance in the Nation's history and that is subject to the most stringent preservation requirements.
NCP	National Oil and Hazardous Substances Pollution Contingency Plan, commonly referred to as the National Contingency Plan. The NCP addresses regulations under CERCLA for responding to releases of oil and HSs, including the cleanup of NPL sites.
NEPA	National Environmental Policy Act. This Act requires all Federal agencies to consider environmental effects of proposed major actions through the preparation of EAs or EISs.
NESHAP	National Emission Standards for Hazardous Air Pollutants. Allowable emissions of hazardous pollutants listed pursuant to CAA Section 112(b) into ambient air.

NHPA	National Historic Preservation Act. This Act establishes historic protection as a national policy and authorizes maintenance of the National Register of Historic Places.
NMFS	National Marine Fisheries Service. Under the ESA, the NMFS and the USF&WS are responsible for compiling lists of threatened and endangered species, for issuing biological opinions regarding Federal activities, and for enforcing statutory and regulatory provisions.
Noise Control Act	This Act establishes noise standards and regulates noise emissions from commercial products such as transportation and construction equipment.
NOI	Notice of Intent. An NOI is used to notify the public of a proposed project and describes the environmental effects considered.
NON	Notice of Noncompliance. A formal enforcement action notice issued by a regulatory agency as a result of non-compliance (TSCA).
Nonhazardous Solid Waste	SWs that are not listed or characteristic HWs under RCRA.
Nonpoint Source Pollution	Pollution caused by diffuse sources that are not regulated as point sources and are not conveyed through a single source. This pollution is normally associated with runoff from construction activities; urban, agricultural, and silvicultural runoff; and other land activities, such as military training and operations, that disturb lands, soils, and waters.
NOV	Notice of Violation. A formal written document issued by a regulatory agency as a result of environmental non-compliance.
NPDES	National Pollutant Discharge Elimination System. A national program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits and for imposing and enforcing pretreatment requirements under the CWA.
NPL	National Priority List. A list of contaminated sites developed by the EPA under CERCLA. For Federal facilities,

	listing on the NPL triggers certain coordination requirements with the EPA and requires EPA oversight of the remedy.
NRC	National Response Center. The Washington, D.C., headquarters (run by the United States Coast Guard) that coordinates activities relative to pollution emergencies.
NRHP	National Register of Historic Places. The National Historic Preservation Act authorizes the Secretary of the Interior to maintain the NRHP to document districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. The NRHP is an authoritative guide to indicate what properties should be considered for protection from destruction or impairment.
NSPS	New Source Performance Standards. Standards of performance for new stationary sources that limit the amount of pollution allowed from new or modified air emission sources.
O&M	Operations and Maintenance. Activities conducted after facility construction to ensure effective and proper operation.
ODS	Ozone Depleting Substance. A substance controlled internationally under the Montreal Protocol and nationally under Title VI of the CAA Amendments.
OEBGD	Overseas Environmental Baseline Guidance Document. Along with a country-specific FGS, the OEBGD establishes policy for Marine Corps facilities in foreign countries.
OHS SCP	Oil and Hazardous Substance Spill Contingency Plan. OHSSCPs identify those areas where spill incidents are likely to occur and establish responses appropriate to future spills and releases.
OPA	Oil Pollution Act. This 1990 Act prohibits harmful discharges of oil and HSs into waters of the United States or discharges that may affect natural resources owned or managed by the United States.
OSHA	Occupational Safety and Health Administration. A Federal agency responsible for regulating worker safety. It estab-

	lishes guidelines and training requirements for workers at hazardous waste sites.
PACE	Pollution Prevention Approach to Compliance Efforts. Marine Corps program intended to reduce the life-cycle cost of environmental compliance efforts.
PAO	Public Affairs Office. The PAO handles public information and community relations activities.
PA/SI	Preliminary Assessment/Site Inspection. The first phase of the IR process designed to identify potential sites with HS contamination.
PCB	Polychlorinated Biphenyl. Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances that contains such substances.
pCi/L	Picocurie per Liter. Unit of measurement used to determine radon concentrations in buildings.
PL	Public Law (see USC).
PMP	Pest Management Plan. A long-range, comprehensive installation planning and operational document that establishes the strategy and methods for conducting a safe, effective, and environmentally sound integrated pest management (IPM) program.
POA&M	Plan of Action and Milestones. The POA&M is a planning strategy and schedule required to address ECE deficiencies.
POL	Petroleum, Oil, and Lubricants. POL includes any petroleum-based fluid or semi-solid and associated products used by the armed forces, but does not include petroleum that is specifically designated as an HS in Section 101(14) of CERCLA or listed in 40 CFR 302. Petroleum, including crude oil or any fraction thereof, is liquid at standard conditions of temperature and pressure. Oil, as defined by the CWA, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. In practice, this includes crude oil, refined fuels (e.g., gasoline, kerosene, diesel, jet fuel, light and heavy fuel oils), lube oil, waste oils,

	oil sludge, and oil refuse. Oil includes synthetic-based lubricating and transmission products. Lubricating (lube) oil includes crank case oil, cutting oil, gear lubricant, metal-working lubricant, hydraulic oil, and transmission fuel.
Pollutant	Nonproduct outputs, regardless of any recycling or treatment, that will or may reasonably be anticipated to cause deleterious effects to public health or the environment.
Pollution Prevention	Source reduction as defined in the PPA, Section 6603, or other practices that reduce or eliminate the creation of other pollutants through increased efficiency in the use of raw materials, energy, water, or other resources or the protection of natural resources by conservation.
POTW	Publicly-Owned Treatment Work. Facilities that treat wastewater and that are owned and operated by a public body, usually a municipal government. Wastewater that is not treated on the installation by a MCOTW is discharged to a POTW. Industrial wastewater discharged to a POTW may require some form of pre-treatment prior to discharge.
Primary MCL	Primary Maximum Contaminant Level. The maximum permissible level of a contaminant in water that is delivered to a public water system. Primary MCLs are enforceable standards that apply to contaminants that pose a threat to human health and the environment and have been established for turbidity, microbiological organisms, volatile organic chemicals, inorganic metals and salts, and organic contaminants such as pesticides.
Primary Standards	A NAAQS promulgated pursuant to the CAA for a pollutant in the ambient air. Primary standards have been defined for six criteria pollutants: carbon monoxide, lead, oxides of nitrogen, ozone, sulfur dioxide, and particulates.
PRP	Potentially Responsible Party (as defined in CERCLA). An owner or operator of the vessel or facility from which there is a release or threatened release of an HS or any other person who may be liable under CERCLA.
PSD	Prevention of Significant Deterioration. Emission control program for those areas with air quality that is better than the NAAQS.

QRP	Qualified Recycling Program. An organized operation that diverts or recovers scrap or waste streams and that identifies, segregates, and maintains the integrity of the recyclable materials in order to maintain or enhance the marketability of the materials.
RAB	Restoration Advisory Board. These boards allow individuals to give advice on the IR program. RABs evolve from TRCs, with the addition of co-chairs and public meetings.
Radioactive Material	Any material that spontaneously emits ionizing radiation.
RCRA	Resource Conservation and Recovery Act. RCRA establishes guidelines and standards for solid and hazardous waste generation, transportation, treatment, storage, and disposal. The HSWA amended RCRA.
RD/RA	Remedial Design/Remedial Action. The third phase in the IR process, concerned with plan development and cleanup actions.
Recycling	The series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacturing of new products other than fuel for producing heat or power by combustion. Recycling also includes using, reusing, or reclaiming materials, as well as processes that regenerate a material or recover a usable product from it.
Regional Response Team	The Federal regional agencies that coordinate pollution emergency response activities.
Register of Historic Places	See NRHP.
RI/FS	Remedial Investigation/Feasibility Study. The second phase of the IR process in which the nature and extent of contamination of a hazardous waste site are determined, cleanup strategies are analyzed, and a proposed remedy is selected.

ROD	Record of Decision. Official document concluding an environmental impact statement or the official EPA document detailing the strategy for cleanup.
RQ	Reportable Quantity. The threshold quantity of an HS that must be reported if released. The list of reportable quantities is contained in 40 CFR 302.4.
SARA	Superfund Amendments and Reauthorization Act. This Act establishes standards for cleanup activities and stipulates the conditions for the off-site disposal of wastes.
SCP	Spill Contingency Plan. (See OHSSCP.)
SDWA	Safe Drinking Water Act. This Act sets drinking water standards for any contaminant that may have an adverse effect on human health or negatively affect the aesthetic quality of drinking water.
Secondary MCL	Drinking water standards that are set to retain environmental qualities not directly related to human health, but to aesthetics, smell, and taste.
Secondary Standards	A NAAQSpromulgated pursuant to the CAA for a pollutant in the ambient air. The allowable amounts of material in air that are set to retain environmental qualities not related to the protection of human health. Secondary air standards define concentrations that will not be harmful to plant life.
SERC	State Emergency Response Commission. Under EPCRA, states and civilian communities must prepare for emergency releases of HSs by appointing a SERC. The SERC establishes and works with LEPCs to identify HMs stored by affected facilities.
SHPO	State Historic Preservation Officer. The SHPO is designated by the Governor, chief executive, or state statute to administer the State Historic Preservation Program, including the responsibilities of identifying and nominating eligible properties to the National Register.
Sikes Act	Also known as Conservation Program Military Lands. Requires military facilities to provide public access for the use of natural resources to the extent it is appropriate and consistent with the military mission.

SIP	State Implementation Plan. Under the CAA, states prepare a SIP to delineate methods to achieve the NAAQS.
SOFA	Status-of-Forces Agreement. An agreement with environmental requirements for commands located in foreign countries.
Source Reduction	Any practice that reduces the amount of any HS, pollutant, or contaminant entering any waste stream or into the environment through any other means (including fugitive emissions) prior to recycling, treatment, or disposal and reduces public health and environmental hazards associated with the release of such substances, pollutants, or contaminants. Source reduction includes equipment or technology modifications; the reformulation or redesign of products; the substitution of raw materials; and improvements in house-keeping, maintenance, training, or inventory control.
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan. The SPCC plan (1) establishes procedures to prevent an oil spill in United States waters; (2) documents existing oil spill prevention structures, procedures, equipment, and deficiencies; (3)inventories oil storage units; and (4) provides procedures to prevent and clean up releases. EPA regulations implementing the CWA require SPCC plans for certain onshore nontransportation-related facilities that have discharged or, due to their location, might discharge oil in harmful quantities into or upon United States navigable waters or adjoining shorelines.
SW	Solid Waste. Any garbage, refuse, trash, rubbish, sludge, waste, or scrap from commercial, agricultural, industrial, or residential activities. This list does not include any of those materials that are classified as HW.
SWMU	Solid Waste Management Unit. Any discernible waste management unit at a RCRAfacility from which hazardous constituents might migrate, even though the unit was intended for the management of SW and/or HW.
Title V Operating Permit	Federally enforceable document, issued by the states, that defines emission standards, operational procedures, and all obligations of the emission source under the CAA.
Toxic Pollutants	Pollutants that will cause adverse health effects after discharge and upon exposure.

TRC	Technical Review Committee. SARASection 211 requires that a TRC be established to review and comment on the technical aspects of IR response actions and proposed actions. Members of the TRC include the Marine Corps, the cognizant NAVFACENGC COM EFD/EFA, EPA officials, state and local authorities, Federal and state natural resources trustees, and community representatives.
TSCA	Toxic Substances Control Act. Regulates PCBs, CFCs, and asbestos. The Act requires the testing of chemical substances entering the environment and the regulating of releases.
TSDF	Treatment, Storage, or Disposal Facility. Facility where HW is treated, stored, or disposed of as defined by RCRA. Such facilities include landfills, surface impoundments, waste piles, and incinerators.
UIC	Underground Injection Control. The regulation of subsurface fluid intake through a well to protect groundwater for potential use in drinking water.
USC	United States Code. The USC is a systematic compilation of laws passed by Congress. Laws are recorded in a volume of session laws or Statutes at Large (e.g., Public Law (PL) No. 91-112 (i.e., the 112th law passed by the 91st Congress of the United States)).
UST	Underground Storage Tank. A tank or tank system containing oil or substances regulated under RCRA for which the tank volume, including piping, is 10 percent or more beneath the surface of the ground.
VOCs	Volatile Organic Compounds. A category of organic compounds that have a tendency to evaporate because of relatively high vapor pressures.
Waste Minimization	Source reduction and the following types of recycling: beneficial use/reuse and reclamation.
Water Quality Standards	Provisions of state or Federal law which consist of (1) a designated use or uses for the waters of the United States and (2) water quality criteria for such waters based upon such uses.

Wetlands	Areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, under normal circumstances, a prevalence of vegetation typically adapted for life in saturated soils.
WHP	Wellhead Protection Area. The surface and subsurface area surrounding a water well or a well field supplying a public water system; if unprotected contaminants are reasonably likely to move and to reach such water well or well field (SDWA, Section 1428(e)).
WQS	Water Quality Standard. Water quality goals for a water body under the CWA.

C APPENDIX C EPA PIC AND HOTLINES

EPA PUBLIC INFORMATION CENTER (PIC)

Public Information Center
U.S. Environmental Protection Agency
Public Information Center
401 M Street, SW
Washington, DC 20460
(202) 260-5922
Web: <http://www.epa.gov/>

Description of Services

PIC is a primary contact point between the EPA and the public. It refers calls and letters to the appropriate sources for technical information and distributes a variety of general-interest items. The PIC also has a visitor center featuring environmental videos, photographic displays, CD ROMs, and databases. Interested groups are encouraged to tour the facilities as an introduction to the agency and to learn about the environment.

The following are public contacts located throughout EPA's ten regions.

EPA Region Hotlines, Clearinghouses, and Federal Facility Coordinators

Several regions maintain other information hotlines and clearinghouses to assist residents with specific issues, and Federal Facilities Coordinators (FFCs) to address Federal facility compliance. These additional sources, which range from waste minimization to recycling, are listed under the respective regions in the following pages.

EPA HEADQUARTERS

Environmental Protection Agency
Federal Facilities Enforcement Office
401 M Street, SW, Washington, DC 20460

Federal Facilities Enforcement Office. (202) 564-2510
Fax (202) 501-0069

EPA REGION I (CT, MA, ME, NH, RI, VT)

1 Congress Street, Suite 1100, Boston, MA 02114-2023

General Number (617) 918-1111
Federal Facilities Coordinators. (617) 918-1805

EPA REGION II (NJ, NY, PR, VI)

290 Broadway, 21st Floor, New York, NY 10007

General Number (212) 637-5000
Federal Facilities Coordinators. (212) 637-3492

EPA REGION III (DE, MD, PA, VA, WV, DC)

1650 Arch Street, Philadelphia, PA 19103-2029

General Number (215) 814-5000
Federal Facilities Coordinators. (215) 814-3367

EPA REGION IV (AL, FL, GA, KY, MS, NC, SC, TN)

61 Forsyth Street, SW, Atlanta, GA 30303

General Number (404) 562-9900
Federal Facilities Coordinators. (404) 562-9625

EPA REGION V (IL, IN, MI, MN, OH, WI)

77 West Jackson Boulevard, Chicago, IL 60604

General Number (312) 353-2000
Federal Facilities Coordinators. (312) 353-6478

EPA REGION VI (AR, LA, NM, OK, TX)

1445 Ross Avenue, Dallas, TX 75202

General Number (214) 665-2200
Federal Facilities Coordinators. (214) 665-6430

EPA REGION VII (IA, KS, MO, NE)

726 Minnesota Avenue, Kansas City, KS 66101

General Number (913) 551-7000
Federal Facilities Coordinators. (913) 551-7744

EPA REGION VIII (CO, MT, ND, SD, UT, WY)

999 18th Street, Suite 500, Denver, CO 80202

General Number (303) 312-6312
Federal Facilities Coordinators. (303) 312-6389

EPA REGION IX (AZ, CA, HI, NV, American Samoa, Guam, Trust Territories of the Pacific)

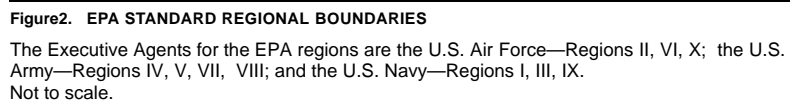
75 Hawthorne Street, San Francisco, CA 94105

General Number (415) 744-1305
Federal Facilities Coordinators. (415) 744-1569

EPA REGION X (AK, ID, OR, WA)

1200 6th Avenue, Seattle, WA 98101

General Number (206) 553-1200
Federal Facilities Coordinators. (206) 553-1747



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Commander's Guide to Environmental Compliance and Protection

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Commander's Guide to Environmental Compliance and Protection

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NOTES:

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Headquarters Marine Corps
2 Navy Annex
Washington, DC 20380-1775

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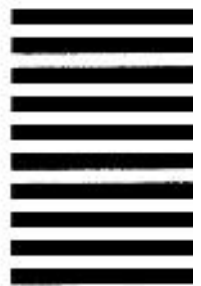
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We thank you for your time and value your response!

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The United States Marine Corps...
One with the Environment

